```
=> fil reg
FILE 'REGISTRY' ENTERED AT 14:09:39 ON 09 APR 2008
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STRUCTURE FILE UPDATES:    8 APR 2008  HIGHEST RN 1012980-81-2
DICTIONARY FILE UPDATES:   8 APR 2008  HIGHEST RN 1012980-81-2

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REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document.  For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=> d sta que l32
L28             STR
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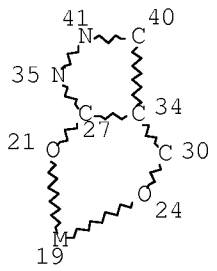


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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
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NUMBER OF NODES IS   9

STEREO ATTRIBUTES: NONE
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L31          34 SEA FILE=REGISTRY ABB=ON  PLU=ON  L30 AND AL/ELS
L32        2862 SEA FILE=REGISTRY ABB=ON  PLU=ON  L30 NOT L31


=> d sta que l45
L33             STR
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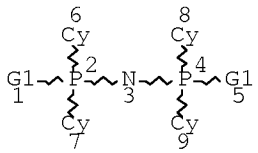

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RING(S) ARE ISOLATED OR EMBEDDED
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STEREO ATTRIBUTES: NONE
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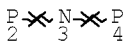

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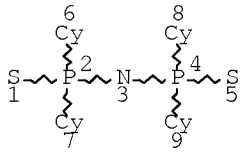
L39 4369 SEA FILE=REGISTRY SUB=L37 SSS FUL L33
L41 STR



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STEREO ATTRIBUTES: NONE
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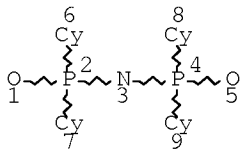

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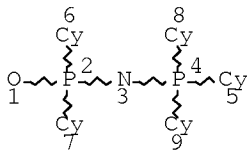
NUMBER OF NODES IS 9

STEREO ATTRIBUTES: NONE
L43 STR



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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 9

STEREO ATTRIBUTES: NONE
L45 287 SEA FILE=REGISTRY SUB=L39 SSS FUL (L41 OR L42 OR L43)

100.0% PROCESSED 372 ITERATIONS 287 ANSWERS
SEARCH TIME: 00.00.01

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L1 1 S US20060035110/PN OR (US2005-537315# OR WO2003-GB5303 OR GB200
E KATHIRGAMANATHAN/AU
L2 129 S E6,E7
E POOPATHY/AU
E BACK E1
E SURENDRAKUMAR/AU
L3 42 S E8-E15
E SIVAGNANASUNDRAM/AU
L4 6 S E1,E2,E4
E BACK E1
E GEMMELL/AU
E GEMMELL P/AU
L5 8 S E4,E5

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                E GANESHAMURUGAN/AU
L6           24 S E4,E6
                E SUBRAMANIAM/AU
L7            1 S E3
                E SUBRAMANIAM G/AU
                E KUMARAVERI/AU
L8           15 S E4-E7
                E MUTTULINGHAM/AU
                E MUTHULINGHAM/AU
                E MUTHULINGAM/AU
                E PARTHEEPAN/AU
L9           11 S E4,E5
                E ARUMUGAM/AU
L10           1 S E3
                E ARUMUGAM P/AU
L11          27 S E3,E4
                E SURESH/AU
L12           7 S E3
                E SURESH S/AU
L13         320 S E3-E9
L14           1 S E37
                E SUTHERALINGAM/AU
                E SELVARANJAN/AU
L15           8 S E4,E5
                E SELVADURAI/AU
                E L1 PA
                E ELAM/CO
L16          35 S E9/CO,PA
                E E9+ALL
L17          35 S E2/CS
L18           1 S L1 AND L2-L17
L19         528 S L1-L17 NOT L18
                SEL RN L18

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L20          75 S E1-E75
L21          10 S L20 AND CCS/CI
L22           6 S L21 NOT (C32H16N8OV OR C32H16N8OTI OR C32H16CUN8 OR C27H18ALN
L23          10 S L20 AND P/ELS
L24           7 S L23 AND N/ELS
L25           2 S L23 AND S/ELS
L26             STR
L27             STR L26
L28             STR L27
L29          50 S L28
L30        2896 S L28 FUL
                SAV L30 NELSON537A/A
L31          34 S L30 AND AL/ELS
L32        2862 S L30 NOT L31
L33             STR
L34          50 S L33
L35             STR L33
L36          50 S L35
L37       31453 S L35 FUL
                SAV TEMP L37 NELSON537B/A
L38           1 S L32 AND L37
L39        4369 S L33 FUL SUB=L37
                SAV TEMP L39 NELSON736C/A
L40           4 S L20 AND L39 NOT L38
L41             STR L33
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L42             STR L41
L43             STR L42
L44          11 S (L41 OR L42 OR L43) SAM SUB=L39
L45         287 S (L41 OR L42 OR L43) FUL SUB=L39
                DEL NELSON736C/A
                SAV TEMP L39 NELSON537C/A
                SAV TEMP L45 NELSON537D/A
L46         225 S L45 NOT CCS/CI
L47         216 S L46 NOT PMS/CI
L48         117 S L47 AND 5/ELC.SUB
L49          21 S L48 AND (C25H50N6OP2 OR C45H55NOP2 OR C30H26NOP2 OR C16H33N5O
L50          10 S L48 AND (C26H31N3OP2 OR C10H20N6OP2 OR C20H40N6O6P2 OR C32H29
L51          31 S L49,L50
L52          99 S L47 NOT L48
L53          34 S L52 AND (C24H21NO2P2 OR C24H20NO2P2 OR C30H22F3NOP2 OR C24H21
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L55          55 S L40,L51,L54
                SAV TEMP L55 NELSON537E/A

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L58         583 S L32
L59         245 S L55
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L61           1 S L59 AND L57
L62           2 S L59 AND L58
L63           3 S L56,L57,L60-L62
L64           1 S L1-L19 AND L63
L65           6 S L1-L19 AND L58
L66           9 S L1-L19 AND L59
L67           3 S L63,L64
L68          13 S L65,L66 NOT L67
L69         446 S L58 AND PY<=2002 NOT P/DT
L70          41 S L58 AND (PRD<=20021205 OR PRD<=20021205 OR AD<=20021205) AND
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L73       65392 S E3-E14
                E E3+ALL
L74       65392 S E18+OLD
                E  ELECTROLUMINESC/CT
L75        1845 S E4-E6
                E E4+ALL
L76       13779 S E8+OLD
                E E15+ALL
L77        1320 S E5+OLD
                E E4+ALL
L78       10989 S E4+OLD,NT
L79        1366 S E11+OLD
                E E8+ALL
L80        3474 S E4+OLD
                E E3+ALL
L81      283792 S E3+OLD,NT
L82          74 S L71 AND L73-L81
L83          74 S L72,L82
L84          46 S L83 AND ?LUMINESC?
L85          46 S L72,L84
L86          28 S L83 NOT L85
                SEL HIT RN L85
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L87         121 S E1-E121

     FILE 'REGISTRY' ENTERED AT 14:09:39 ON 09 APR 2008

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FILE LAST UPDATED: 8 Apr 2008  (20080408/ED)

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 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

=> d l67 bib abs hitstr retable tot

L67  ANSWER 1 OF 3  HCAPLUS  COPYRIGHT 2008 ACS on STN
AN   2004:493812  HCAPLUS  Full-text
DN   141:61840
TI   Electroluminescent materials and devices based on metal complexes of
     1-phenyl-3-methyl-4-trimethylacetyl-pyrazol-5-one
IN   Kathirgamanathan, Poopathy; Surendrakumar,
     Sivagnanasundram; Gemmell, Patrick; Ganeshamurugan,
     Subramaniam; Kumaraverl, Muttulingham; Partheepan,
     Arumugam; Suresh, Sutheralingam; Selvaranjan,
     Selvadurai
PA   Elam-T Limited, UK
SO   PCT Int. Appl., 59 pp.
     CODEN: PIXXD2
DT   Patent
LA   English
FAN.CNT 1
     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
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             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM,
             PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN,
             TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
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JP 2006509008 T 20060316 JP 2004-556546 20031205 <--
US 20060035110 A1 20060216 US 2005-537315 20050822 <--
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WO 2003-GB5303 W 20031205 <--
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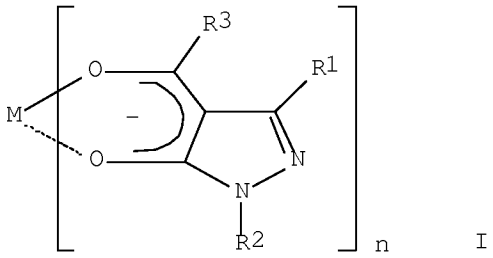


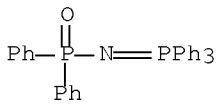
I

AB Electroluminescent compds. are described by formula (I) where M is a metal other than Al; n is the valency of M; R1, R2 and R3 which may be the same or different are selected from hydrogen, hydrocarbyl groups, substituted and unsubstituted aliphatic groups, substituted and unsubstituted aromatic, heterocyclic and polycyclic ring structures, fluorocarbons such as trifluoryl Me groups, halogens such as fluorine or thiophenyl groups or nitrile; R1, and R3 can also be form ring structures and R1, R2 and R3 can be copolymerizable with a monomer, e.g. styrene. Electroluminescent device comprising the compound of formula (I) in the luminescent layer are also discussed. Thus, metal complex of 1-phenyl-3-methyl-4- trimethylacetyl-pyrazol-5-one were prepared and characterized.

IT 2156-69-6D, metal complexes 16523-64-1D, metal complexes 18357-23-8D, metal complexes 706820-58-8D, derivs., metal complexes
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(electroluminescent materials and devices based on metal complexes)

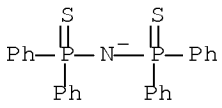
RN 2156-69-6 HCAPLUS

CN Phosphinic amide, P,P-diphenyl-N-(triphenylphosphoranylidene)- (7CI, 8CI, 9CI) (CA INDEX NAME)



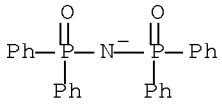
RN 16523-64-1 HCAPLUS

CN Phosphinimidothioic acid, N-(diphenylphosphinothioyl)-P,P-diphenyl-, ion(1-) (8CI, 9CI) (CA INDEX NAME)



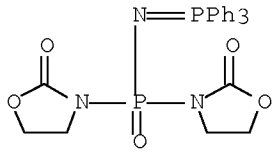
RN 18357-23-8 HCAPLUS

CN Phosphinic amide, N-(diphenylphosphinyl)-P,P-diphenyl-, ion(1-) (CA INDEX NAME)



RN 706820-58-8 HCAPLUS

CN Phosphinic amide, P,P-bis(2-oxo-3-oxazolidinyl)-N-(triphenylphosphoranylidene)- (9CI) (CA INDEX NAME)



IT 709013-72-9P

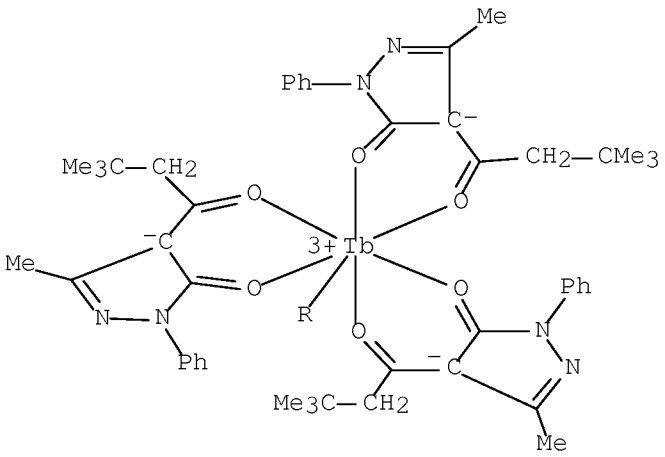
RL: DEV (Device component use); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)

(electroluminescent materials and devices based on metal complexes of 1-Ph-3-Me-4-trimethylacetyl-pyrazol-5-one)

RN 709013-72-9 HCAPLUS

CN Terbium, tris[4-[3,3-dimethyl-1-(oxo-κO)butyl]-2,4-dihydro-5-methyl-2-phenyl-3H-pyrazol-3-onato-κO3][P,P-diphenyl-N-(triphenylphosphoranylidene)phosphinic amide-κO]- (9CI) (CA INDEX NAME)

PAGE 1-A



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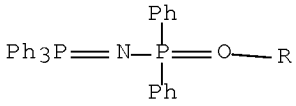
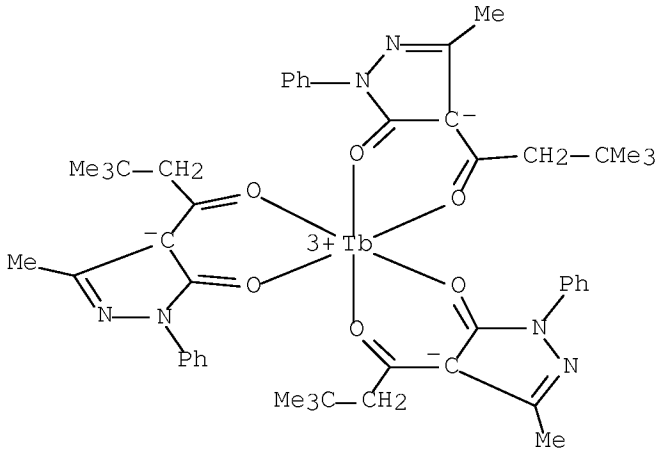


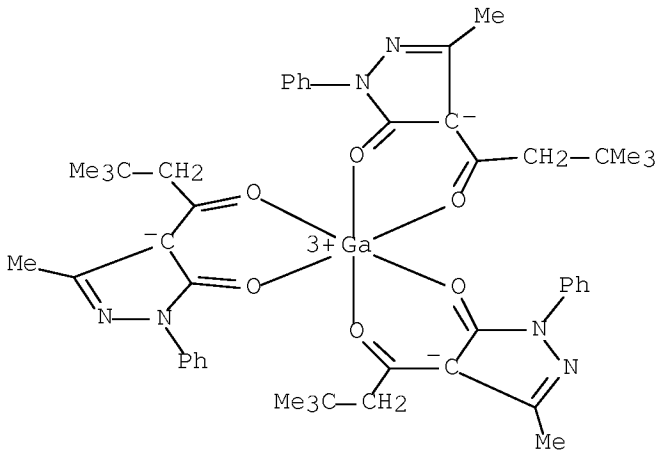
IT 403842-74-0P 709013-66-1P 709013-68-3P
709013-70-7P 709013-71-8P
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(electroluminescent materials and devices based on metal complexes of 1-Ph-3-Me-4-trimethylacetyl-pyrazol-5-one)

RN 403842-74-0 HCAPLUS

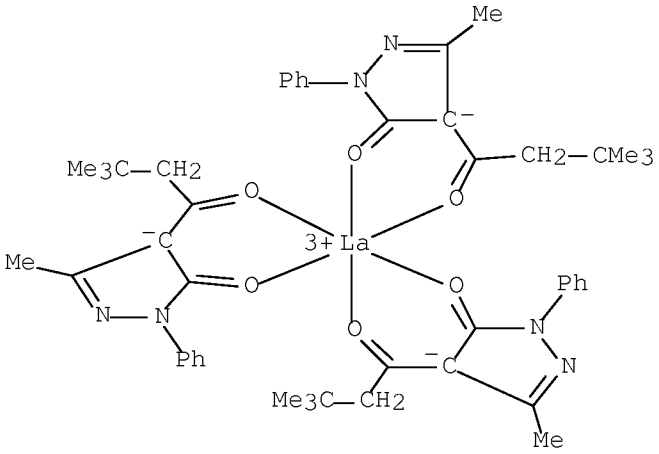
CN Terbium, tris[4-[3,3-dimethyl-1-(oxo-κO)butyl]-2,4-dihydro-5-methyl-2-phenyl-3H-pyrazol-3-onato-κO3]- (CA INDEX NAME)



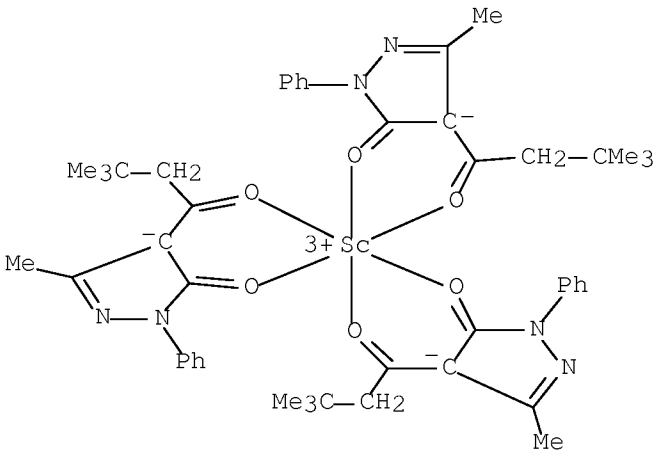
RN 709013-66-1 HCAPLUS
CN Gallium, tris[4-[3,3-dimethyl-1-(oxo-κO)butyl]-2,4-dihydro-5-methyl-2-phenyl-3H-pyrazol-3-onato-κO3]- (CA INDEX NAME)



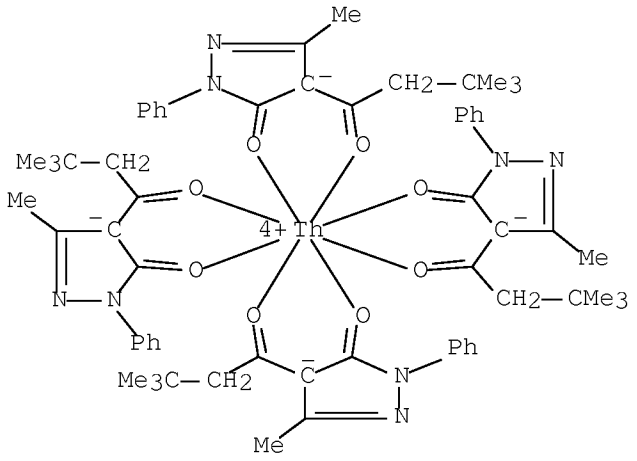
RN 709013-68-3 HCAPLUS
CN Lanthanum, tris[4-[3,3-dimethyl-1-(oxo-κO)butyl]-2,4-dihydro-5-methyl-2-phenyl-3H-pyrazol-3-onato-κO3]- (CA INDEX NAME)



RN 709013-70-7 HCAPLUS
CN Scandium, tris[4-[3,3-dimethyl-1-(oxo-κO)butyl]-2,4-dihydro-5-methyl-2-phenyl-3H-pyrazol-3-onato-κO3]- (CA INDEX NAME)



RN 709013-71-8 HCAPLUS
CN Thorium, tetrakis[4-[3,3-dimethyl-1-(oxo-κO)butyl]-2,4-dihydro-5-methyl-2-phenyl-3H-pyrazol-3-onato-κO3]- (CA INDEX NAME)



RETABLE

| Referenced Author (RAU) | Year (RPY) | VOL (RVL) | PG (RPG) | Referenced Work (RWK) | Referenced File |
|---|---|---|---|---|---|
| Akama, Y | 1995 | 44 | 1107 | JOURNAL OF THERMAL A | HCAPLUS |
| Fadeeva, V | 1975 | | 507 | IZVESTIYA AKADEMII N | HCAPLUS |
| Isis Innovation Limited | 2002 | | | WO 0220692 A | HCAPLUS |
| Victorovich, S | 2000 | | | WO 0079616 A | HCAPLUS |
| XI-Cun, G | 1999 | 99 | 127 | SYNTHETIC METALS | |
| Xin, H | 2002 | 4 | 5895 | PHYSICAL CHEMISTRY C | HCAPLUS |

L67 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 2003:590870 HCAPLUS Full-text
DN 139:159040
TI Photoactive lanthanide complexes with phosphine oxides, phosphine oxide-sulfides, pyridine N-oxides, and phosphine oxide-pyridine N-oxides, and thin film OLED devices made with such complexes
IN Grushin, Vladimir; Herron, Norman; Petrov, Viacheslav Alexandrovich; Radu, Nora Sabina; Wang, Ying
PA E. I. Du Pont De Nemours and Company, USA
SO U.S. Pat. Appl. Publ., 18 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1

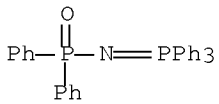
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| PI US 20030144487 | A1 | 20030731 | US 2002-185484 | 20020627 |
| US 6875523 | B2 | 20050405 | | |
| CA 2449740 | A1 | 20031106 | CA 2002-2449740 | 20020703 |
| WO 2003091688 | A2 | 20031106 | WO 2002-US21024 | 20020703 |
| WO 2003091688 | A3 | 20040805 | | |

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF,

CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
AU 2002367777 A1 20031110 AU 2002-367777 20020703
EP 1465595 A2 20041013 EP 2002-807315 20020703
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK
CN 1606431 A 20050413 CN 2002-813590 20020703
JP 2005519988 T 20050707 JP 2004-500029 20020703
TW 593626 B 20040621 TW 2002-91114969 20020705
US 20050095202 A1 20050505 US 2004-11676 20041214
US 7074505 B2 20060711
US 20050095203 A1 20050505 US 2004-11699 20041214
US 20050095204 A1 20050505 US 2004-11700 20041214
US 7090931 B2 20060815
US 20050100511 A1 20050512 US 2004-11668 20041214
US 7063903 B2 20060620
US 20050106109 A1 20050519 US 2004-11074 20041214
US 7087323 B2 20060808
US 20050153165 A1 20050714 US 2004-11225 20041214
US 7074504 B2 20060711
PRAI US 2001-303283P P 20010705
US 2002-185484 A3 20020627
WO 2002-US21024 W 20020703
OS MARPAT 139:159040

AB The present invention is generally directed to luminescent lanthanide compds. with phosphine oxide, phosphine oxide-sulfide, pyridine N-oxide, and phosphine oxide-pyridine N-oxide ligands, especially with β-enolate co-ligands. It also relates to thin film OLED electronic devices in which the active layer includes the photoactive lanthanide complex. Thus, Tb(PMBP)3(F5tpO)2 [PMBP = 4-isobutyryl-3-methyl-1-phenyl-5-pyrazolinate, F5tpO = tris(pentafluorophenyl)phosphine oxide] was prepared and its electroluminescent properties were measured along with 7 other prepared complexes. Thin layer OLED devices were prepared including a hole transport layer, electroluminescent layer comprising the lanthanide complexes of the invention, and at least one electron transport layer. Various hole and electron transport materials are also claimed. Cyclometalated iridium complexes derived from (un)substituted 2-phenylpyridines are preferred.

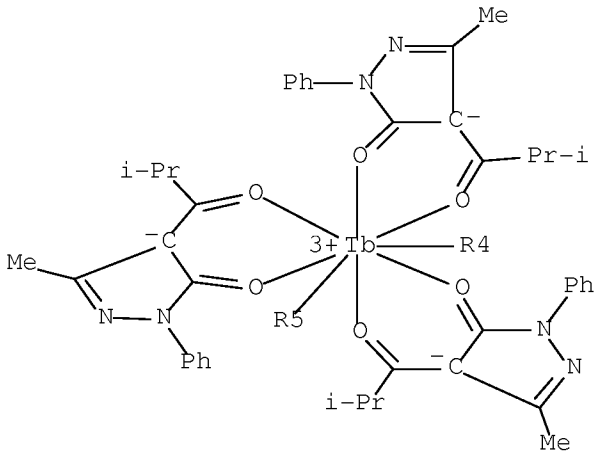
IT 2156-69-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and coordination in luminescent lanthanide complexes)
RN 2156-69-6 HCAPLUS
CN Phosphinic amide, P,P-diphenyl-N-(triphenylphosphoranylidene)- (7CI, 8CI, 9CI) (CA INDEX NAME)



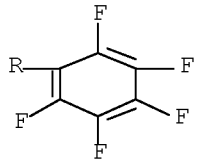

IT 569642-07-5P 569642-13-3P
RL: DEV (Device component use); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(preparation and electroluminescent properties as photoactive lanthanide complex for use in electronic devices)
RN 569642-07-5 HCAPLUS
CN Terbium, tris[2,4-dihydro-5-methyl-4-[2-methyl-1-(oxo-κO)propyl]-2-

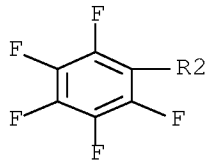
phenyl-3H-pyrazol-3-onato-κO3]bis[tris(pentafluorophenyl)phosphine oxide-κO]- (9CI) (CA INDEX NAME)

PAGE 1-A

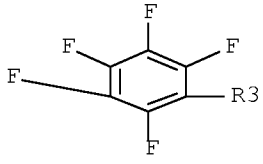



PAGE 2-A

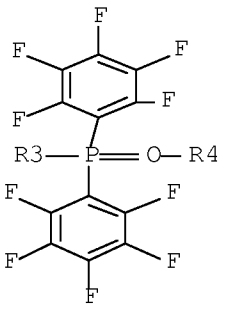


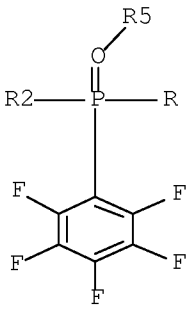

PAGE 3-A



PAGE 4-A

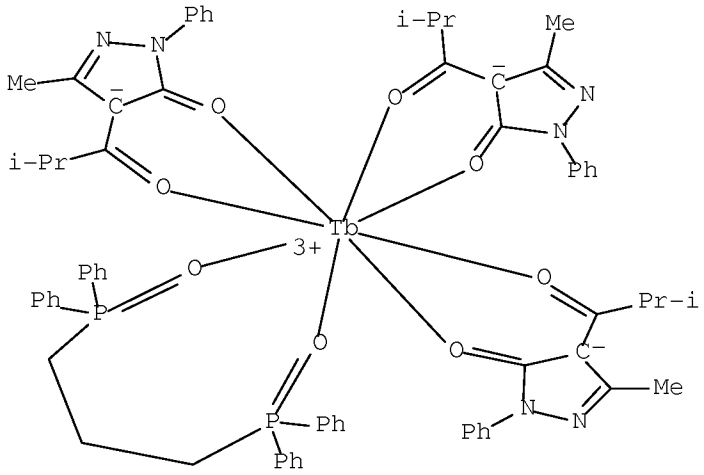


PAGE 5-A



RN 569642-13-3 HCAPLUS

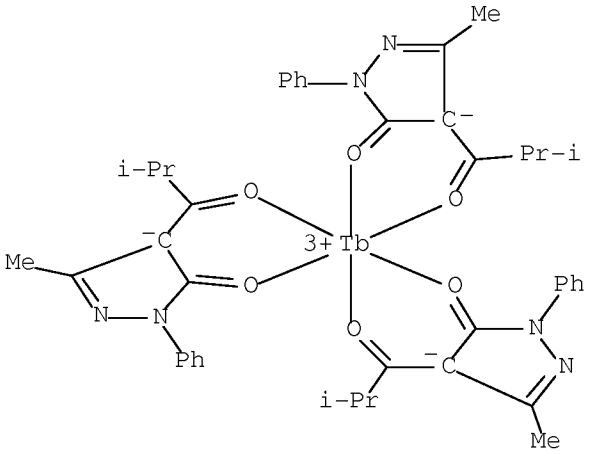
CN Terbium, tris[2,4-dihydro-5-methyl-4-[2-methyl-1-(oxo-κO)propyl]-2-phenyl-3H-pyrazol-3-onato-κO3][1,3-propanediylbis[diphenylphosphine oxide-κO]]- (9CI) (CA INDEX NAME)



IT 569642-06-4P

RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP

(Preparation); RACT (Reactant or reagent)
(preparation, luminescence, and reaction with phosphine oxides or analogs to
give photoactive lanthanide complexes)
RN 569642-06-4 HCAPLUS
CN Terbium, tris[2,4-dihydro-5-methyl-4-[2-methyl-1-(oxo-κO)propyl]-2-phenyl-3H-pyrazol-3-onato-κO3]- (CA INDEX NAME)

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| Referenced Author (RAU) | Year (RPY) | VOL (RVL) | PG (RPG) | Referenced Work (RWK) | Referenced File |
|---|---|---|---|---|---|
| Anon | 1996 | | | EP 0556005 B1 | HCAPLUS |
| Anon | 1996 | | | JP 2505244 B2 | HCAPLUS |
| Anon | 1998 | | | WO 9858037 A1 | HCAPLUS |
| Anon | 1999 | | | EP 0744451 B1 | HCAPLUS |
| Anon | 2002 | | | JP 2002124383 A | HCAPLUS |
| Anon | 2003 | | | JP 200381986 A | |
| Anon | 2002 | | | An2002:313481 for JP | |
| Anon | 2003 | | | An2003:214732 HCAPLU | |
| Boerner | 1998 | | | US 5756224 A | HCAPLUS |
| Carey | 1969 | 31 | 553 | Journal of Inorganic | |
| Gao, X | 1996 | 72 | 2217 | Applied Physics Lett | |
| Kalinovskaya | 1993 | 38 | 288 | Zhurnal Neorganiches | HCAPLUS |
| Skotheim | 1992 | | | US 5128587 A | HCAPLUS |

L67 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 2002:185252 HCAPLUS Full-text
DN 136:254310
TI Pyrazolone lanthanide complexes and their preparation and light-emitting devices using them
IN Pillow, Jonathan Nigel Gerard; Christou, Victor; Etchells, Mark; Mosley, Alain
PA Isis Innovation Limited, UK
SO PCT Int. Appl., 26 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1
PATENT NO. KIND DATE APPLICATION NO. DATE

| | | | | | |
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| PI | WO 2002020692 | A1 | 20020314 | WO 2001-GB4019 | 20010907 |
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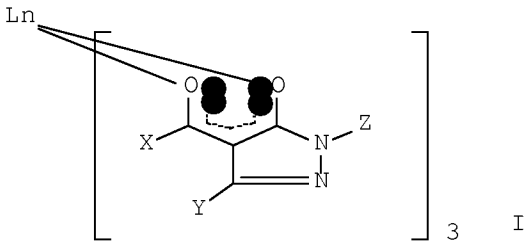
| | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| | AU 2001084299 | A | 20020322 | AU 2001-84299 | 20010907 |
| | GB 2384000 | A | 20030716 | GB 2003-5197 | 20010907 |
| | GB 2384000 | B | 20040728 | | |
| | US 20040027821 | A1 | 20040212 | US 2003-363206 | 20030814 |
| PRAI | GB 2000-22081 | A | 20000908 | | |
| | WO 2001-GB4019 | W | 20010907 | | |

OS MARPAT 136:254310

GI



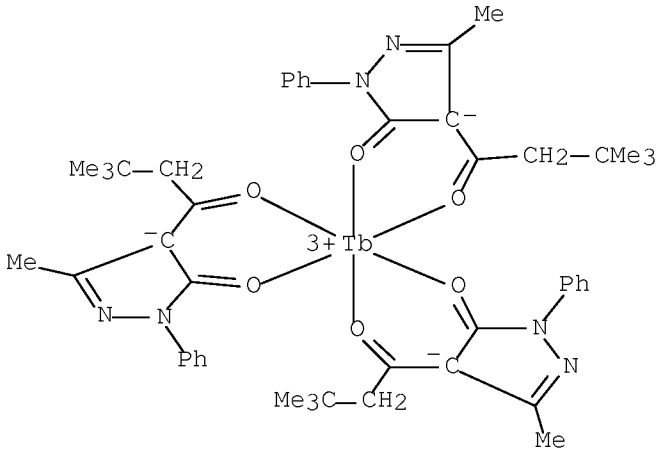

I

AB Lanthanide compds are described by the general formula I (Ln = a trivalent lanthanide ion; X, Y, and Z = independently selected H, (un)substituted aromatic group, or (un)substituted aliphatic or cycloaliph. group, with the restriction that ≥1 of X, Y and Z = an aromatic group which is conjugated with the pyrazolone ring system, and, when X or Y represents such a group, the group can optionally be attached via a hetero atom). Methods for preparing the compds. are described which entail subliming at least once a corresponding compound which possesses a co-ligand. Light-emitting devices employing the compds. are also described.

IT 403842-74-0
RL: DEV (Device component use); USES (Uses)
(pyrazolone lanthanide complexes and their preparation and light-emitting devices using them)

RN 403842-74-0 HCAPLUS

CN Terbium, tris[4-[3,3-dimethyl-1-(oxo-κO)butyl]-2,4-dihydro-5-methyl-2-phenyl-3H-pyrazol-3-onato-κO3]- (CA INDEX NAME)



RETABLE

| Referenced Author (RAU) | Year (RPY) | VOL (RVL) | PG (RPG) | Referenced Work (RWK) | Referenced File |
|---|---|---|---|---|---|
| Amersham Int Plc | 1993 | | | EP 0556005 A | HCAPLUS |
| Kathirgamanathan, P | 1998 | | | WO 9858037 A | HCAPLUS |
| Konishiroku Photo Ind | 2000 | | | EP 1013740 A | HCAPLUS |
| Sandoz Ltd | 1982 | | | GB 2091732 A | HCAPLUS |
| Wallac Oy | 1993 | | | WO 9311433 A | HCAPLUS |
| Wallac Oy | 1997 | | | EP 0770610 A | HCAPLUS |

=> => d l68 bib abs hitstr tot

L68 ANSWER 1 OF 13 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 2006:734542 HCAPLUS Full-text
DN 145:198513
TI Electroluminescent device fabrication by spin coating electroluminescent organometallic complexes on coated substrates
IN Kathirgamanathan, Poopathy; Ganeshamurugan, Subramaniam ; Price, Richard
PA Oled-T Limited, UK
SO PCT Int. Appl., 51 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| PI WO 2006077402 | A1 | 20060727 | WO 2006-GB169 | 20060119 |

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,

KG, KZ, MD, RU, TJ, TM

| | | | | | |
|---|---|---|---|---|---|
| EP 1839464 | A1 | 20071003 | EP 2006-702771 | 20060119 | |
| R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR | | | | | |
| CN 101107884 | A | 20080116 | CN 2006-80002852 | 20060119 | |
| IN 2007DN05397 | A | 20070817 | IN 2007-DN5397 | 20070712 | |
| KR 2007102556 | A | 20071018 | KR 2007-718852 | 20070817 | |
| PRAI GB 2005-1426 | A | 20050122 | | | |
| WO 2006-GB169 | W | 20060119 | | | |

OS MARPAT 145:198513

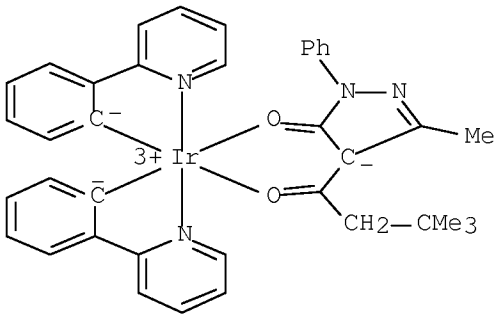
AB Methods of forming electroluminescent devices are described which entail depositing by spin coating a layer of an electroluminescent organometallic complex on a substrate (which is the anode) which is coated with a layer of a polymer. The polymer is preferably a conductive or charge-transporting polymer or material.

IT 647838-95-7 863714-50-5

RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process); USES (Uses)
(electroluminescent device fabrication by spin coating electroluminescent organometallic complexes on coated substrates)

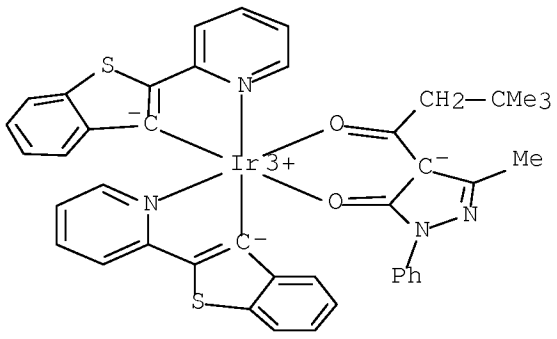
RN 647838-95-7 HCAPLUS

CN Iridium, [4-[3,3-dimethyl-1-(oxo-κO)butyl]-2,4-dihydro-5-methyl-2-phenyl-3H-pyrazol-3-onato-κO3]bis[2-(2-pyridinyl-κN)phenyl-κC]- (CA INDEX NAME)




RN 863714-50-5 HCAPLUS

CN Iridium, [4-[3,3-dimethyl-1-(oxo-κO)butyl]-2-phenyl-2,4-dihydro-5-methyl-3H-pyrazol-3-onato-κO3]bis[2-(2-pyridinyl-κN)benzo[b]thien-3-yl-κC]- (9CI) (CA INDEX NAME)



RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L68 ANSWER 2 OF 13 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 2006:439982 HCAPLUS Full-text
DN 144:458233
TI Electroluminescent devices with anode buffer layers
IN Kathirgamanathan, Poopathy; Ganeshamurugan, Subramaniam ; Kumaraverl, Muttulingham; Partheepan, Arumugam; Paramaswara, Gnanamoly
PA Nuko 70 Limited, UK
SO PCT Int. Appl., 89 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| PI WO 2006048635 | A1 | 20060511 | WO 2005-GB4222 | 20051101 |
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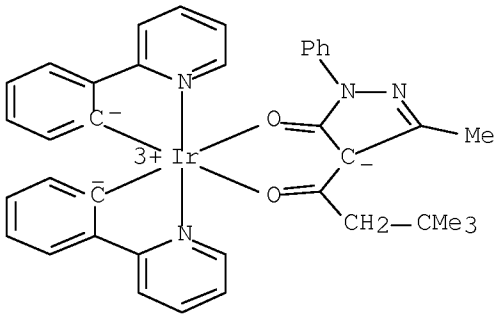
| RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| EP 1812530 | A1 | 20070801 | EP 2005-800128 | 20051101 |
| R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR | | | | |
| PRAI GB 2004-24294 | A | 20041103 | | |
| WO 2005-GB4222 | W | 20051101 | | |

AB Electroluminescent devices are described which are provided with a buffer layer on the anode, the buffer material being selected from metal tetra-p-tolyl porphinato complexes and bianthryl compds. [9,9'-Bianthracene]-10,10'-diamine, N,N'-di-2-naphthalenyl-N,N'-diphenyl- [223735-42-0] or [9,9'-Bianthracene]-10,10'-diamine, N,N'-di-1- naphthalenyl-N,N'-diphenyl-. The electroluminescent materials may be organometallic compds., including multinuclear complexes.

IT 647838-95-7
RL: DEV (Device component use); USES (Uses)
(electroluminescent devices with anode buffer layers)

RN 647838-95-7 HCAPLUS
CN Iridium, [4-[3,3-dimethyl-1-(oxo-κO)butyl]-2,4-dihydro-5-methyl-2-phenyl-3H-pyrazol-3-onato-κO3]bis[2-(2-pyridinyl-κN)phenyl-κC]- (CA INDEX NAME)




RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L68 ANSWER 3 OF 13 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 2005:962358 HCAPLUS Full-text
DN 143:275247
TI Electroluminescent organometallic materials and their preparation and devices using them
IN Kathirgamanathan, Poopathy; Price, Richard; Ganeshamurugan, Subramaniam; Paramaswara, Gnanamoly; Kumaraverl, Muttulingham ; Partheepan, Arumugam; Selvaranjan, Selvadurai; Antipan-Lara, Juan; Surendrakumar, Sivagnanasundram
PA Elam-T Limited, UK
SO PCT Int. Appl., 66 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
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| PI | WO 2005080526 | A2 | 20050901 | WO 2005-GB446 | 20050210 |
| | WO 2005080526 | A3 | 20051103 | | |
| | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW | | | | |
| | RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| | EP 1723213 | A2 | 20061122 | EP 2005-708271 | 20050210 |
| | R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR | | | | |
| | JP 2007524680 | T | 20070830 | JP 2006-552679 | 20050210 |
| | KR 2007004719 | A | 20070109 | KR 2006-718827 | 20060914 |
| PRAI | GB 2004-3322 | A | 20040214 | | |
| | WO 2005-GB446 | W | 20050210 | | |

OS MARPAT 143:275247
GI

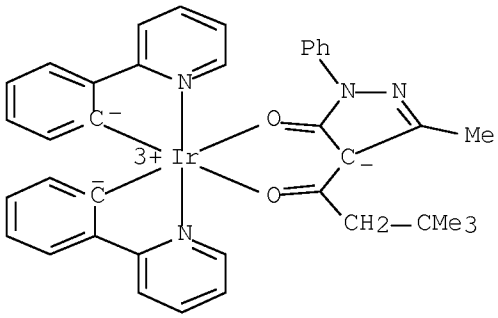
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Electroluminescent compds. are described by the general formula I, II, and III (R1-6 = independently selected H, (un)substituted hydrocarbyl groups such as (un)substituted aliphatic groups, (un)substituted aromatic, heterocyclic and polycyclic ring structures, fluorocarbons such as trifluoryl Me groups, halogens such as F, or thiophenyl groups; R1, R2 and R3 can form (un)substituted fused aromatic, heterocyclic and polycyclic ring structures and can be copolymerizable with a monomer, e.g. styrene; M = ruthenium, rhodium, palladium, osmium, iridium, or platinum; and n+2 is the valency of M). Methods of preparing the compds. are also described which entail reacting a bridged complex with an appropriate ligand. Electroluminescent devices employing the materials are also described.

IT 647838-95-7P 863714-47-0P 863714-48-1P
863714-49-2P 863714-50-5P
RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
(electroluminescent organometallic materials and their preparation and devices using them)

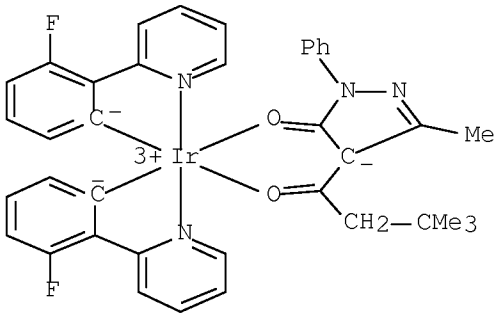
RN 647838-95-7 HCAPLUS

CN Iridium, [4-[3,3-dimethyl-1-(oxo-κO)butyl]-2,4-dihydro-5-methyl-2-phenyl-3H-pyrazol-3-onato-κO3]bis[2-(2-pyridinyl-κN)phenyl-κC]- (CA INDEX NAME)



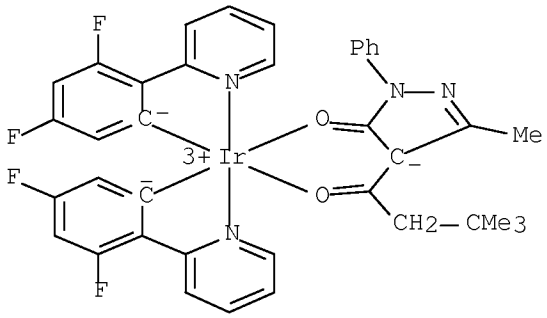

RN 863714-47-0 HCAPLUS

CN Iridium, [4-[3,3-dimethyl-1-(oxo-κO)butyl]-2,4-dihydro-5-methyl-2-phenyl-3H-pyrazol-3-onato-κO3]bis[3-fluoro-2-(2-pyridinyl-κN)phenyl-κC]- (CA INDEX NAME)



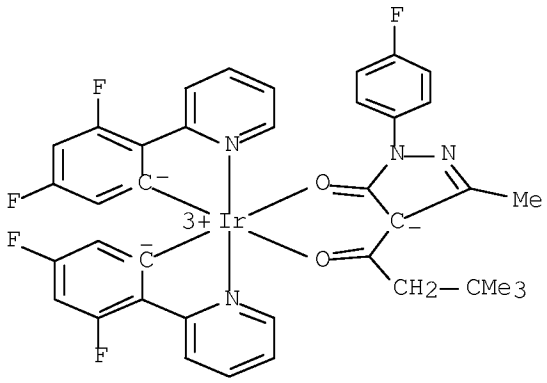

RN 863714-48-1 HCAPLUS

CN Iridium, bis[3,5-difluoro-2-(2-pyridinyl-κN)phenyl-κC][4-[3,3-dimethyl-1-(oxo-κO)butyl]-2,4-dihydro-5-methyl-2-phenyl-3H-pyrazol-3-onato-κO3]- (CA INDEX NAME)



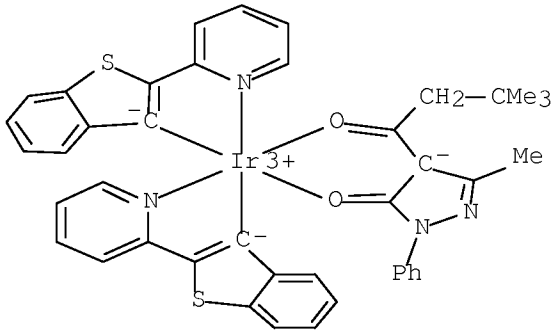
RN 863714-49-2 HCAPLUS

CN Iridium, bis[3,5-difluoro-2-(2-pyridinyl-κN)phenyl-κC][4-[3,3-dimethyl-1-(oxo-κO)butyl]-2-(4-fluorophenyl)-2,4-dihydro-5-methyl-3H-pyrazol-3-onato-κO3]- (CA INDEX NAME)



RN 863714-50-5 HCAPLUS

CN Iridium, [4-[3,3-dimethyl-1-(oxo-κO)butyl]-2-phenyl-2,4-dihydro-5-methyl-3H-pyrazol-3-onato-κO3]bis[2-(2-pyridinyl-κN)benzo[b]thien-3-yl-κC]- (9CI) (CA INDEX NAME)




L68 ANSWER 4 OF 13 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 2004:569985 HCAPLUS Full-text
DN 141:130990
TI Electroluminescent materials based on metal complexes or organometallic complexes and devices employing the electroluminescent materials
IN Kathirgamanathan, Poopathy; Kandappu, Vijendra; Ganeshamurugan, Subramaniam; Paramaswara, Gnanamoly
PA Elam-T Limited, UK
SO PCT Int. Appl., 59 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | WO 2004058912 | A2 | 20040715 | WO 2003-GB5663 | 20031223 |
| | WO 2004058912 | A3 | 20041229 | | |
| | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW | | | | |
| | RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| | AU 2003290341 | A1 | 20040722 | AU 2003-290341 | 20031223 |
| | EP 1578886 | A2 | 20050928 | EP 2003-782701 | 20031223 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK | | | | |
| | JP 2006512755 | T | 20060413 | JP 2004-563368 | 20031223 |
| | US 20060105197 | A1 | 20060518 | US 2005-540733 | 20050727 |
| PRAI | GB 2002-30074 | A | 20021224 | | |
| | GB 2002-30077 | A | 20021224 | | |
| | WO 2003-GB5663 | W | 20031223 | | |

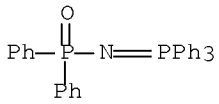
AB Electroluminescent devices are described which comprise a first electrode, a layer of a first electroluminescent metal complex or organo metallic complex, a layer of a second metal complex or organo metallic complex and a second electrode and in which the band gap of the second electroluminescent metal complex or organo metallic complex is larger than the band gap of the first electroluminescent metal complex or organo metallic complex.

IT 2156-69-6D, derivs., metal complexes
RL: DEV (Device component use); USES (Uses)

(PONP; electroluminescent materials based on metal complexes or organometallic complexes and devices employing electroluminescent materials)

RN 2156-69-6 HCAPLUS

CN Phosphinic amide, P,P-diphenyl-N-(triphenylphosphoranylidene)- (7CI, 8CI, 9CI) (CA INDEX NAME)



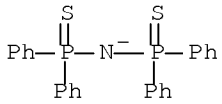
IT 16523-64-1D, metal complexes 18357-23-8D, metal complexes 706820-58-8D, derivs., metal complexes 723302-64-5D, derivs., metal complexes

RL: DEV (Device component use); USES (Uses)

(electroluminescent materials based on metal complexes or organometallic complexes and devices employing electroluminescent materials)

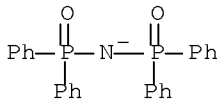
RN 16523-64-1 HCAPLUS

CN Phosphinimidothioic acid, N-(diphenylphosphinothioyl)-P,P-diphenyl-, ion(1-) (8CI, 9CI) (CA INDEX NAME)



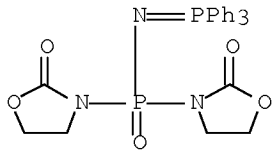
RN 18357-23-8 HCAPLUS

CN Phosphinic amide, N-(diphenylphosphinyl)-P,P-diphenyl-, ion(1-) (CA INDEX NAME)

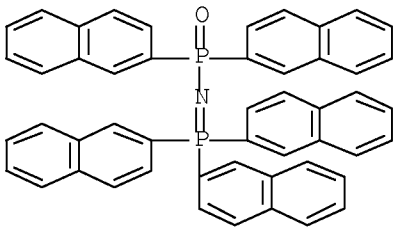


RN 706820-58-8 HCAPLUS

CN Phosphinic amide, P,P-bis(2-oxo-3-oxazolidinyl)-N-(triphenylphosphoranylidene)- (9CI) (CA INDEX NAME)



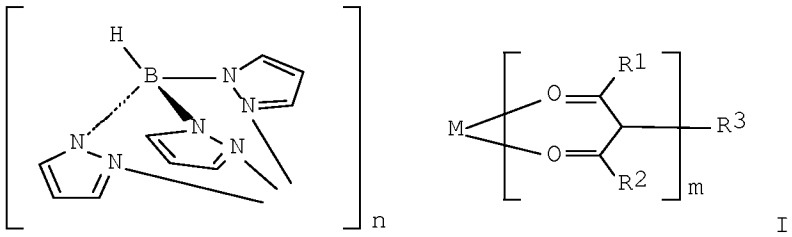
RN 723302-64-5 HCAPLUS
CN Phosphinic amide, P,P-di-2-naphthalenyl-N-(tri-2-naphthalenylphosphoranylidene)- (9CI) (CA INDEX NAME)



L68 ANSWER 5 OF 13 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 2004:120926 HCAPLUS Full-text
DN 140:189734
TI Electroluminescent materials and devices
IN Kathirgamanathan, Poopathy; Kirkham, Matthew Samuel; Lay, Alexander Kit; Selvaranjan, Selvadurai; Kumaraverl, Muttulingam
PA Elam-T Limited, UK
SO PCT Int. Appl., 72 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | WO 2004013252 | A1 | 20040212 | WO 2003-GB3377 | 20030804 |
| | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW | | | | |
| | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| | AU 2003255747 | A1 | 20040223 | AU 2003-255747 | 20030804 |
| | GB 2406573 | A | 20050306 | GB 2005-1866 | 20030804 |
| | GB 2406573 | B | 20051228 | | |
| PRAI | GB 2002-17918 | A | 20020802 | | |
| | WO 2003-GB3377 | W | 20030804 | | |

OS MARPAT 140:189734
GI



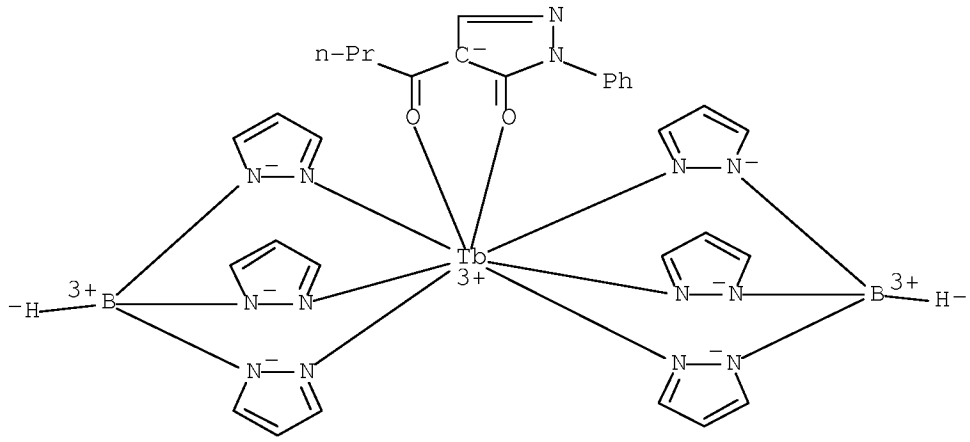
I

AB Electroluminescent devices are described which employ a layer of an electroluminescent material are described by the general formula I (R1, R2, and R3 = independently selected H, (un)substituted hydrocarbyl groups such as (un)substituted aliphatic groups, (un)substituted aromatic, heterocyclic and polycyclic ring structures, fluorocarbons such as trifluoryl Me groups, -CH2CH3, halogens, such as F, or thiophenyl groups; R1, R2, and R3 can also form (un)substituted fused aromatic, heterocyclic and polycyclic ring structures, can be copolymerizable with a monomer, e.g., styrene, or can be polymer, oligomer or dendrimer substituents; M = a transition metal, rare earth, lanthanide, or actinide; and m + n = the valency of M).

IT 660390-51-2P
RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(electroluminescent devices using heteroleptic tris(pyrazolyl)borate complexes)

RN 660390-51-2 HCAPLUS

CN Terbium, [2,4-dihydro-4-[1-(oxo-κO)butyl]-2-phenyl-3H-pyrazol-3-onato-κO3]bis[hydrotris(1H-pyrazolato-κN1)borato(1-)-κN2,κN2',κN2'']- (9CI) (CA INDEX NAME)



L68 ANSWER 6 OF 13 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 2004:60874 HCAPLUS Full-text

DN 140:114240

TI Metal chelates in a photovoltaic device

IN Kathirgamanathan, Poopathy; Antipan-Lara, Juan; Partheepan, Arumugam

PA Elam-Limited, UK

SO PCT Int. Appl., 59 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

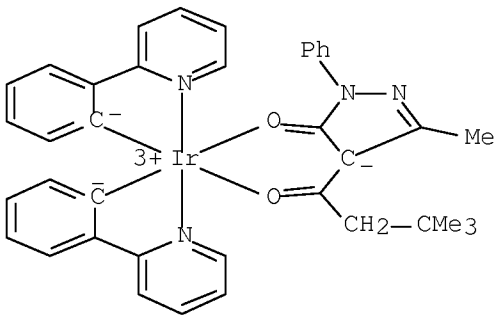
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| PI WO 2004008554 | A2 | 20040122 | WO 2003-GB3035 | 20030714 |
| WO 2004008554 | A3 | 20041111 | | |

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

| | | | | |
|---|---|---|---|---|
| AU 2003281003 | A1 | 20040202 | AU 2003-281003 | 20030714 |
| PRAI GB 2002-16154 | A | 20020712 | | |
| WO 2003-GB3035 | W | 20030714 | | |

OS MARPAT 140:114240
AB A photovoltaic device uses a metal chelate as the photovoltaic element. The device comprises sequentially (1) a first electrode comprising a metal, (2) the photovoltaic element, and (3) a second electrode. The photovoltaic element comprises an organometallic complex with an organic ligand and a metal (a rare earth, transition metal, lanthanide, or an actinide).
IT 647838-95-7
RL: DEV (Device component use); USES (Uses)
(metal chelates in photovoltaic device)
RN 647838-95-7 HCAPLUS
CN Iridium, [4-[3,3-dimethyl-1-(oxo-κO)butyl]-2,4-dihydro-5-methyl-2-phenyl-3H-pyrazol-3-onato-κO3]bis[2-(2-pyridinyl-κN)phenyl-κC]- (CA INDEX NAME)




L68 ANSWER 7 OF 13 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 2003:356545 HCAPLUS Full-text
DN 138:376062
TI Document authentication using fluorescent metal organic complex
IN Kathirgamanathan, Poopathy
PA Elam-T Limited, UK
SO PCT Int. Appl., 39 pp.
CODEN: PIXXD2

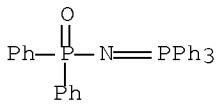
DT Patent
LA English
FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| PI WO 2003038010 | A1 | 20030508 | WO 2002-GB4761 | 20021021 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW | | | | |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| AU 2002334215 | A1 | 20030512 | AU 2002-334215 | 20021021 |
| EP 1458835 | A1 | 20040922 | EP 2002-802330 | 20021021 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK | | | | |
| JP 2005507330 | T | 20050317 | JP 2003-540277 | 20021021 |
| US 20050019603 | A1 | 20050127 | US 2004-494120 | 20040607 |
| PRAI GB 2001-26065 | A | 20011031 | | |
| WO 2002-GB4761 | W | 20021021 | | |

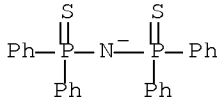
AB Methods of forming an authenticatable or identifiable article are discussed which entail marking the article or incorporating in or on the article a fluorescent metal organic complex. Authenticatable or identifiable articles, items or documents are described in which the article, item or document or a marking on the article, item or document incorporates a fluorescent metal organic complex.

IT 2156-69-6D, metal complex 16523-64-1D, metal complex
18357-23-8D, metal complex
RL: TEM (Technical or engineered material use); USES (Uses)
(document authentication using fluorescent metal organic complex)

RN 2156-69-6 HCAPLUS
CN Phosphinic amide, P,P-diphenyl-N-(triphenylphosphoranylidene)- (7CI, 8CI, 9CI) (CA INDEX NAME)

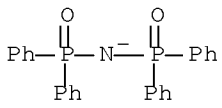


RN 16523-64-1 HCAPLUS
CN Phosphinimidothioic acid, N-(diphenylphosphinothioyl)-P,P-diphenyl-, ion(1-) (8CI, 9CI) (CA INDEX NAME)



RN 18357-23-8 HCAPLUS

CN Phosphinic amide, N-(diphenylphosphinyl)-P,P-diphenyl-, ion(1-) (CA INDEX NAME)

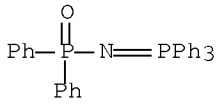


RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L68 ANSWER 8 OF 13 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 2002:833149 HCAPLUS Full-text
DN 137:343714
TI Electroluminescent devices incorporating mixed metal organic complexes
IN Kathirgamanathan, Poopathy; Ravichandran, Seenivasagam; Surendrakumar, Sivagnasundram
PA Elam-T Limited, UK
SO PCT Int. Appl., 58 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | WO 2002087283 | A1 | 20021031 | WO 2002-GB1844 | 20020422 |
| | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW | | | | |
| | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| | AU 2002251316 | A1 | 20021105 | AU 2002-251316 | 20020422 |
| | US 20040137264 | A1 | 20040715 | US 2004-475627 | 20040116 |
| | US 7235311 | B2 | 20070626 | | |
| PRAI | GB 2001-9755 | A | 20010420 | | |
| | WO 2002-GB1844 | W | 20020422 | | |

AB Electroluminescent devices are described which employ an electroluminescent material comprising complexes described by the general formula (Lα)nM1M2 (M1 = a rare earth, transition metal, lanthanide, or actinide; M2 = a non-rare earth metal; Lα = an organic complex; and n = the combined valence state of M1 and M2).
IT 2156-69-6D, reaction products with metals
RL: RCT (Reactant); RACT (Reactant or reagent)
(electroluminescent devices incorporating mixed metal organic complexes)
RN 2156-69-6 HCAPLUS
CN Phosphinic amide, P,P-diphenyl-N-(triphenylphosphoranylidene)- (7CI, 8CI, 9CI) (CA INDEX NAME)

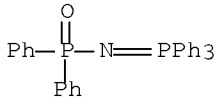


RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L68 ANSWER 9 OF 13 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 2002:832884 HCAPLUS Full-text
DN 137:345196
TI Mixed metal organic complexes
IN Kathirgamanathan, Poopathy; Wickramsinghe, Chamila;
Ganeshamurugan, Srilankan; Ravichandran, Seenivasagam
PA Elam-T Limited, UK
SO PCT Int. Appl., 24 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | WO 2002086015 | A2 | 20021031 | WO 2002-GB1839 | 20020422 |
| | WO 2002086015 | A3 | 20030103 | | |
| | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW | | | | |
| | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| | TW 574389 | B | 20040201 | TW 2002-91107280 | 20020411 |
| | AU 2002251312 | A1 | 20021105 | AU 2002-251312 | 20020422 |
| PRAI | GB 2001-9758 | A | 20010420 | | |
| | WO 2002-GB1839 | W | 20020422 | | |

AB Complexes are described by the general formula (Lα)nM1M2 (M1 = a rare earth, transition metal, lanthanide, or actinide; M2 = a non-rare earth metal; Lα = an organic complex; and n = the combined valence state of M1 and M2). Use of the complexes as electroluminescent or photoluminescent materials is indicated.
IT 2156-69-6D, reaction products with metals
RL: RCT (Reactant); RACT (Reactant or reagent)
(mixed metal organic complexes)
RN 2156-69-6 HCAPLUS
CN Phosphinic amide, P,P-diphenyl-N-(triphenylphosphoranylidene)- (7CI, 8CI, 9CI) (CA INDEX NAME)

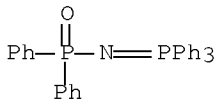


L68 ANSWER 10 OF 13 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 2002:408987 HCAPLUS Full-text
DN 136:408818
TI Electroluminescent devices using organometallic complex emitting layers
IN Kathirgamanathan, Poopathy
PA Elam-T Limited, UK
SO PCT Int. Appl., 54 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | WO 2002043446 | A1 | 20020530 | WO 2001-GB5111 | 20011121 |
| | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW | | | | |
| | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| | AU 2002023077 | A | 20020603 | AU 2002-23077 | 20011121 |
| | EP 1336325 | A1 | 20030820 | EP 2001-997975 | 20011121 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | | |
| | JP 2004515042 | T | 20040520 | JP 2002-545036 | 20011121 |
| | US 20040023062 | A1 | 20040205 | US 2003-442663 | 20030520 |
| PRAI | GB 2000-28439 | A | 20001121 | | |
| | WO 2001-GB5111 | W | 20011121 | | |

AB Electroluminescent devices are described which comprise a first electrode, a hole-transporting layer formed of material which emits light in the blue spectrum, an electroluminescent layer incorporating a rare earth complex with an organic ligand, and a second electrode.

IT 2156-69-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(electroluminescent devices using rare earth organometallic complex emitting layers)
RN 2156-69-6 HCAPLUS
CN Phosphinic amide, P,P-diphenyl-N-(triphenylphosphoranylidene)- (7CI, 8CI, 9CI) (CA INDEX NAME)



RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L68 ANSWER 11 OF 13 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 2000:384344 HCAPLUS Full-text
DN 133:36318
TI Method for forming films or layers
IN Kathirgamanathan, Poopathy

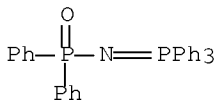
PA South Bank University Enterprises Ltd., UK
SO PCT Int. Appl., 24 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | WO 2000032719 | A1 | 20000608 | WO 1999-GB4030 | 19991201 |
| | W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW | | | | |
| | RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| | CA 2352882 | A1 | 20000608 | CA 1999-2352882 | 19991201 |
| | EP 1144544 | A1 | 20011017 | EP 1999-973059 | 19991201 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| | BR 9916924 | A | 20011106 | BR 1999-16924 | 19991201 |
| | JP 2002531913 | T | 20020924 | JP 2000-585350 | 19991201 |
| | AU 757859 | B2 | 20030306 | AU 2000-14009 | 19991201 |
| | IN 2001MN00617 | A | 20050617 | IN 2001-MN617 | 20010530 |
| | MX 2001PA05538 | A | 20030714 | MX 2001-PA5538 | 20010601 |
| | US 6605317 | B1 | 20030812 | US 2001-857287 | 20010601 |
| PRAI | GB 1998-26405 | A | 19981202 | | |
| | WO 1999-GB4030 | W | 19991201 | | |

OS MARPAT 133:36318

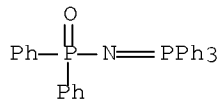
AB Methods for forming a film or layer of an organometallic complex on a substrate are described which entail vaporizing a metal complex and an organic compound and condensing the vapor on to a substrate to form a film or layer of the organometallic complex on the substrate. The compds. may be mixed prior to vaporization or may be vaporized sequentially. Use of the methods for the fabrication of electroluminescent devices is described.

IT 2156-69-6D, actinide and lanthanide complexes
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(vapor deposition of films or layers of organometallic complexes and electroluminescent device fabrication entailing the deposition)
RN 2156-69-6 HCAPLUS
CN Phosphinic amide, P,P-diphenyl-N-(triphenylphosphoranylidene)- (7CI, 8CI, 9CI) (CA INDEX NAME)



IT 2156-69-6
RL: PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
(vapor deposition of films or layers of organometallic complexes and electroluminescent device fabrication entailing the deposition)
RN 2156-69-6 HCAPLUS
CN Phosphinic amide, P,P-diphenyl-N-(triphenylphosphoranylidene)- (7CI, 8CI,

9CI) (CA INDEX NAME)



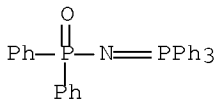
RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L68 ANSWER 12 OF 13 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 2000:384343 HCAPLUS Full-text
DN 133:24529
TI Electroluminescent materials
IN Kathirgamanathan, Poopathy
PA South Bank University Enterprises Ltd., UK
SO PCT Int. Appl., 17 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| PI WO 2000032718 | A1 | 20000608 | WO 1999-GB4028 | 19991201 |
| W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW | | | | |
| RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| CA 2352883 | A1 | 20000608 | CA 1999-2352883 | 19991201 |
| BR 9916921 | A | 20011106 | BR 1999-16921 | 19991201 |
| EP 1171544 | A1 | 20020116 | EP 1999-973058 | 19991201 |
| EP 1171544 | B1 | 20030924 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| JP 2002531630 | T | 20020924 | JP 2000-585349 | 19991201 |
| AU 758754 | B2 | 20030327 | AU 2000-14008 | 19991201 |
| AT 250657 | T | 20031015 | AT 1999-973058 | 19991201 |
| PT 1171544 | T | 20040227 | PT 1999-973058 | 19991201 |
| ES 2203255 | T3 | 20040401 | ES 1999-973058 | 19991201 |
| TW 469751 | B | 20011221 | TW 2000-89110587 | 20000531 |
| IN 2001MN00615 | A | 20060505 | IN 2001-MN615 | 20010530 |
| US 6565995 | B1 | 20030520 | US 2001-857286 | 20010601 |
| MX 2001PA05539 | A | 20030714 | MX 2001-PA5539 | 20010601 |
| HK 1040527 | A1 | 20040305 | HK 2002-102039 | 20020315 |
| PRAI GB 1998-26407 | A | 19981202 | | |
| WO 1999-GB4028 | W | 19991201 | | |

AB Electroluminescent devices are described which employ Tb(TMHD)3OPNP (TMHD = 2,2,6,6-tetramethyl-3,5-heptanedionato, and OPNP = diphenylphosphonimide tri-Ph phosphorane) as the electroluminescent material. The devices may be prepared by vapor deposition techniques in which tris(2,2,6,6-tetramethyl-3,5-heptanedionato)terbium and diphenylphosphonimide tri-Ph phosphorane are evaporated simultaneously or sequentially. A method for producing white light is also claimed which entails applying a voltage >12 V to the devices.

IT 2156-69-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(electroluminescent devices employing tris(2,2,6,6-tetramethyl-3,5-heptanedionato)terbium diphenylphosphonimide tri-Ph phosphorane)
RN 2156-69-6 HCAPLUS
CN Phosphinic amide, P,P-diphenyl-N-(triphenylphosphoranylidene)- (7CI, 8CI, 9CI) (CA INDEX NAME)



RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L68 ANSWER 13 OF 13 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 1999:9912 HCAPLUS Full-text
DN 130:102684
TI Electroluminescent material
IN Kathirgamanathan, Poopathy
PA South Bank University Enterprises Ltd., UK
SO PCT Int. Appl., 39 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

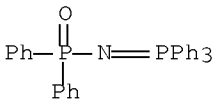
| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | WO 9858037 | A1 | 19981223 | WO 1998-GB1773 | 19980617 |
| | W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| | RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | | |
| | CA 2293532 | A1 | 19981223 | CA 1998-2293532 | 19980617 |
| | AU 9881165 | A | 19990104 | AU 1998-81165 | 19980617 |
| | AU 741025 | B2 | 20011122 | | |
| | EP 990016 | A1 | 20000405 | EP 1998-930877 | 19980617 |
| | EP 990016 | B1 | 20050817 | | |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI | | | | |
| | JP 2002505701 | T | 20020219 | JP 1999-503979 | 19980617 |
| | AT 302250 | T | 20050915 | AT 1998-930877 | 19980617 |
| | US 6524727 | B1 | 20030225 | US 1999-466523 | 19991217 |
| PRAI | GB 1997-12483 | A | 19970617 | | |
| | WO 1998-GB1773 | W | 19980617 | | |

OS MARPAT 130:102684
AB Electroluminescent devices comprising a transparent substrate on which is formed a layer of an electroluminescent material are described in which the electroluminescent material is a rare earth metal, actinide or transition metal organic complex which has a photoluminescent efficiency (PL) >25%, preferably >40%. Electroluminescent complexes are also described. in which

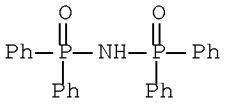
the metal is a rare earth, transition metal, lanthanide, or an actinide and ≥1 of the ligands is either O-C(R')-C(R")-C(R')-O or a 2,2'-Bis(pyridyl)ketone derivative (R'= (un)substituted aromatic or heterocylic ring structures, a hydrocarbyl of a fluorocarbon, or tert-butyl; and R" = (un)substituted aromatic or heterocylic ring structures, a hydrocarbyl of a fluorocarbon, F, or H, or can be part of a copolymer). Preferably, the metals are selected from Sm(III), Eu(III), Tb(III), Dy(III), Yb(III), Lu(III), Gd (III), Eu(II), U(III), UO2(VI), and Th(III).

IT 2156-69-6 31239-06-2, Imidotetraphenyldiphosphinic acid
218917-64-7 218917-67-0 218917-70-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(electroluminescent materials based on metal complexes and devices using them)

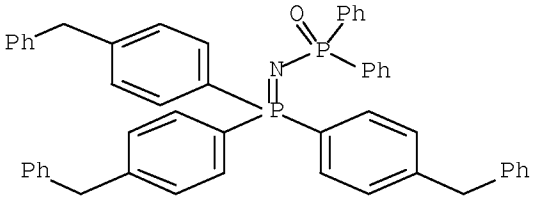
RN 2156-69-6 HCAPLUS
CN Phosphinic amide, P,P-diphenyl-N-(triphenylphosphoranylidene)- (7CI, 8CI, 9CI) (CA INDEX NAME)



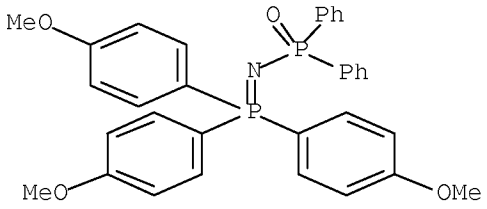
RN 31239-06-2 HCAPLUS
CN Phosphinic amide, N-(diphenylphosphinyl)-P,P-diphenyl- (CA INDEX NAME)



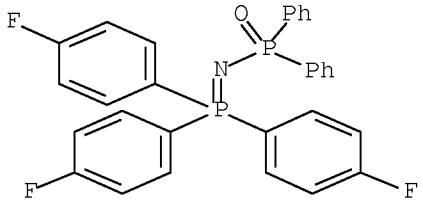
RN 218917-64-7 HCAPLUS
CN Phosphinic amide, P,P-diphenyl-N-[tris[4-(phenylmethyl)phenyl]phosphoranylidene]- (9CI) (CA INDEX NAME)



RN 218917-67-0 HCAPLUS
CN Phosphinic amide, P,P-diphenyl-N-[tris(4-methoxyphenyl)phosphoranylidene]- (9CI) (CA INDEX NAME)



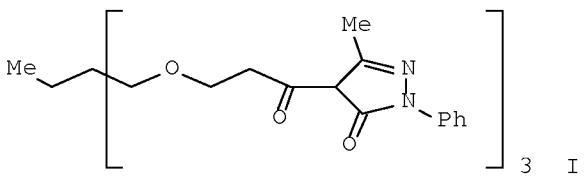
RN 218917-70-5 HCAPLUS
CN Phosphinic amide, P,P-diphenyl-N-[tris(4-fluorophenyl)phosphoranylidene]-
(9CI) (CA INDEX NAME)



RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> => => d l86 bib abs hitrn fhitstr tot

L86 ANSWER 1 OF 28 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 2002:983692 HCAPLUS Full-text
DN 139:158920
TI Synthesis, characterization and fluorescent properties of a new tripodal compounds containing pyrazolone and of its RE coordinating complexes
AU Jiang, Yihua; Yang, Rudong; Yan, Lan; Hu, Xiaoli; Yuan, Wenbin
CS College of Chemistry and Chemical Engineering, Lanzhou University, Lanzhou, 730000, Peop. Rep. China
SO Zhongguo Xitu Xuebao (2002), 20(5), 474-477
CODEN: ZXXUE5; ISSN: 1000-4343
PB Yejin Gongye Chubanshe
DT Journal
LA Chinese
OS CASREACT 139:158920
GI



AB A novel tripodal compound containing pyrazolone (I = H3L) and its trivalent rare earth complexes REL·0.5H2O (RE = La, Sm, Eu, Gd, Tb, Dy, Yb) were synthesized. Characterization was carried out by elemental anal., 1H NMR, MS, IR, molar conductivity and fluorescence spectrometry. The mol. formula of the ligand is C45H50N6O9, the rare earth complexes are 1:1 nonelectrolyte and their composition ratio is REL·0.5H2O. The complexes containing Sm, Eu, Tb and Dy show fluorescence, with the fluorescence properties of TbL·0.5H2O being the best. It is attributed to the efficient energy transfer between central rare earth ions and ligands. For the europium complex a noncentrosym. coordination environment can be deduced from the shape of EuL·0.5H2O spectra.

IT 572873-90-6P 572873-91-7P 572873-93-9P
572873-94-0P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and fluorescence of rare earth complexes with tripodal pyrazolone-containing ligand)

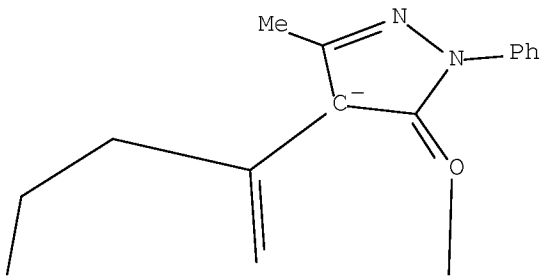
IT 572873-89-3P 572873-92-8P 572873-95-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of rare earth complexes with tripodal pyrazolone-containing ligand)

IT 572873-90-6P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and fluorescence of rare earth complexes with tripodal pyrazolone-containing ligand)

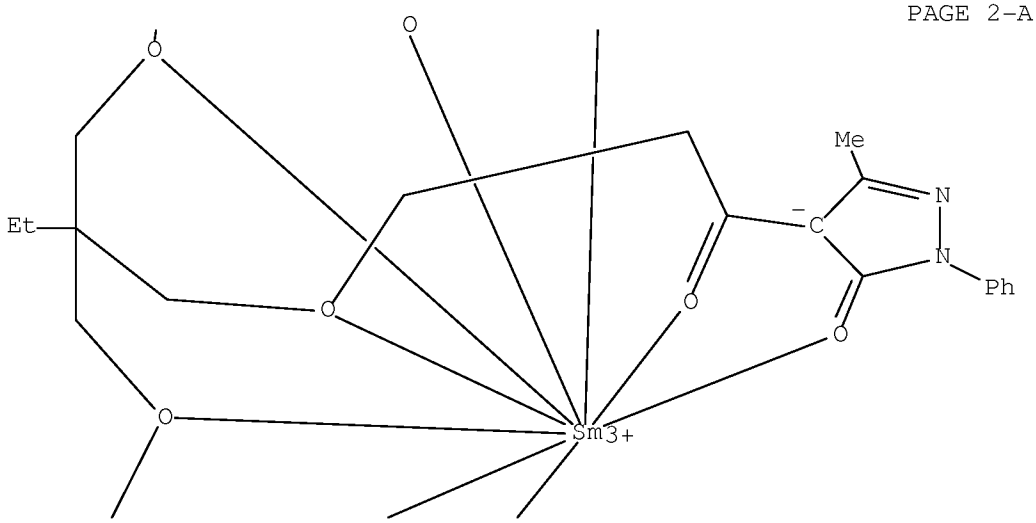
RN 572873-90-6 HCAPLUS

CN Samarium, [[4,4'-[[2-[[3-[4,5-dihydro-3-methyl-5-(oxo-κO)-1-phenyl-1H-pyrazol-4-yl]-3-(oxo-κO)propoxy-κO]methyl]-2-ethyl-1,3-propanediyl]bis[(oxy-κO)[1-(oxo-κO)-3,1-propanediyl]]]bis[2,4-dihydro-5-methyl-2-phenyl-3H-pyrazol-3-onato-κO3]](3-)]- (9CI) (CA INDEX NAME)

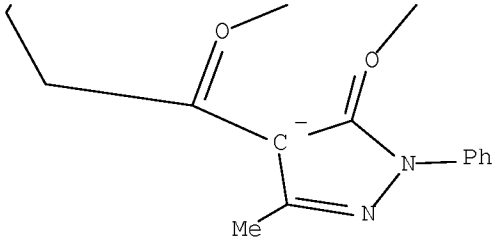
PAGE 1-A



PAGE 2-A




PAGE 3-A




L86 ANSWER 2 OF 28 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 2002:698024 HCAPLUS Full-text
DN 138:63408
TI Influence of the complex anion on the nonlinear optical properties of the hemicyanine cation
AU Clays, Koen; Wostyn, Kurt; Persoons, Andre
CS Laboratory for Chemical and Biological Dynamics, Department of Chemistry, KU Leuven, Louvain, B-3001, Belg.
SO Trends in Optics and Photonics (2002), 64(Organic Thin Films for Photonic Applications), 9-13
CODEN: TOPRBS
PB Optical Society of America
DT Journal
LA English
AB The authors have increased the precision of frequency-resolved hyper-Rayleigh scattering by measuring the full Fourier transform of the time-dependent hyper-Rayleigh scattering signal. Adding the measurement of the phase shift between the immediate hyper-Rayleigh scattering and time-delayed fluorescence to the measurement of the demodulation of the fluorescence increases the precision of the setup with ≤1 order of magnitude. This increased precision was used to determine the impact of f-orbital filling on the 1st hyperpolarizability of 4 lanthanate complexes containing the hemicyanine 1-

hexadecyl-4-{2-[4-(dimethylamino)phenyl]ethenyl}p yridinium chromophore. A detailed anal. of the fitting equations is also given.

IT 162521-61-1 226918-54-3 255904-95-1
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); PROC (Process)
(complex anion influence on nonlinear optical properties of cation of)

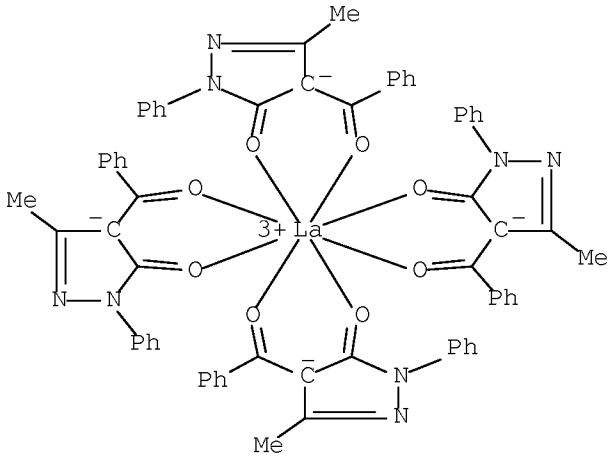
IT 162521-61-1
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); PROC (Process)
(complex anion influence on nonlinear optical properties of cation of)

RN 162521-61-1 HCAPLUS

CN Pyridinium, 4-[(1E)-2-[4-(dimethylamino)phenyl]ethenyl]-1-hexadecyl-, tetrakis[4-(benzoyl-κO)-2,4-dihydro-5-methyl-2-phenyl-3H-pyrazol-3-onato-κO3]lanthanate(1-) (9CI) (CA INDEX NAME)

CM 1

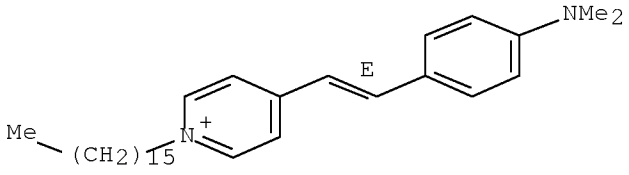
CRN 157058-67-8
CMF C68 H52 La N8 O8
CCI CCS



CM 2

CRN 155806-31-8
CMF C31 H49 N2

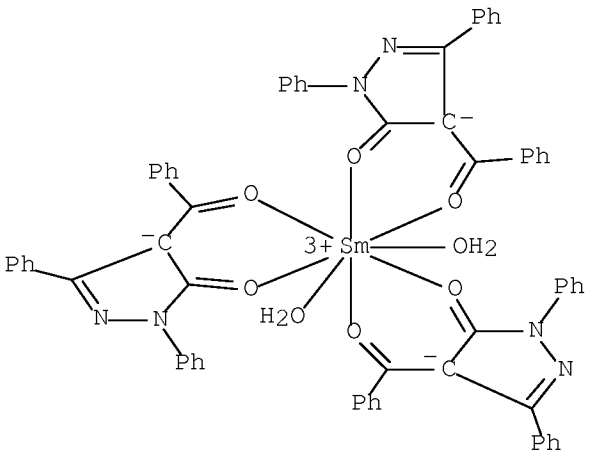
Double bond geometry as shown.



RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L86 ANSWER 3 OF 28 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 2002:360344 HCAPLUS Full-text
DN 137:133971
TI Synthesis and fluorescent properties of Sm(III) complexes with 1,3-diphenyl-4-benzoyl-5-pyrazolones
AU Li, Jianyu; Xue, Weixing
CS College of Chemical Engineering, Beijing Technology and Business University, Beijing, 100037, Peop. Rep. China
SO Huaxue Shiji (2002), 24(2), 67-69
CODEN: HUSHDR; ISSN: 0258-3283
PB Huagongbu Huaxue Shiji Xinsizhan
DT Journal
LA Chinese
OS CASREACT 137:133971
AB The binary and ternary Sm(III) complexes with 1,3-diphenyl-4-benzoyl-5-pyrazolone (DPBZP) and 1,10-phenanthroline (phen) were prepared The composition of the complexes is Sm(DPBZP)3·2H2O and Sm(DPBZP)3(phen) by chemical and elemental anal. Their structures were further characterized by FTIR spectra. The fluorescence spectra of the complexes showed characteristic fluorescence of Sm(III). The energy level of the triplet state of the DPBZP ligand matches well with the lowest excited state (1G5/2) level of Sm3+ ion. The second ligand, phen, showed an enhancement effect on the fluorescence of the complexes.
IT 444106-31-4P 444106-40-5P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and fluorescence)
IT 444106-31-4P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and fluorescence)
RN 444106-31-4 HCAPLUS
CN Samarium, diaquatris[4-(benzoyl-κO)-2,4-dihydro-2,5-diphenyl-3H-pyrazol-3-onato-κO3]- (CA INDEX NAME)



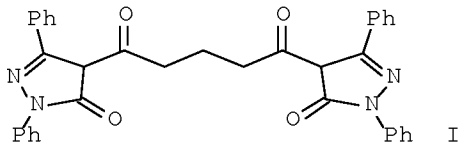

L86 ANSWER 4 OF 28 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 2002:151677 HCAPLUS Full-text
DN 137:149218
TI Synthesis and fluorescent properties of Dy(III) complexes with

1,5-bis(1',3'-diphenyl-5'-pyrazolone-4')-1,5-pentanedione (BDPPPD)

AU Xue, Wei-xing; Li, Jian-yu
CS College of Chemical Engineering, Beijing Technology and Business University, Beijing, 100037, Peop. Rep. China

SO Jingxi Huagong (2002), 19(1), 22-24
CODEN: JIHUFJ; ISSN: 1003-5214
PB Jingxi Huagong Bianjibu
DT Journal
LA Chinese
OS CASREACT 137:149218

GI



I

AB The binary and ternary complexes of Dy(III) with 1,5-bis(1',3'-diphenyl-5'-pyrazolone-4')-1,5-pentanedione (H2BDPPPD) (I), Dy2(BDPPPD)3·6H2O and Dy2(BDPPPD)3(Phen)2·2H2O (Phen = 1,10-phenanthroline), were prepared with molar ratio n(Dy3+):n(BDPPPD) = 2:3 and n(Dy3+):n(BDPPPD):n(Phen) = 2:3:2 at appropriate pH(.apprx.7) in dioxane, the yields being 91.2% and 89.6% resp. The composition of the complexes was determined by chemical, elemental and thermal anal., and the structures of the complexes were characterized by FTIR spectra. The fluorescence spectra of the complexes were measured. The fluorescent emission peaks of the complexes are at nearly 481 and 576 nm corresponding to the 4F9/2 → 6H15/2 and 4F9/2 → 6H13/2 transition of Dy3+, resp., indicating that the complexes emit the characteristic fluorescence of Dy(III). The 2nd ligand Phen has a fluorescence intensity enhancement effect on the complex, the fluorescence intensity of the maximal emission (at 576 nm) of the ternary complex Dy2(BDPPPD)3(Phen)2·2H2O is 1.68 times as high as that of the binary complex Dy2(BDPPPD)3·6H2O. The strong fluorescence of the complexes shows that the energy level of the triplet state of BDPPPD ligand matches well with the lowest excited state (4F9/2) level of Dy3+ ion, and that the absorption coefficient of BDPPPD is high. Therefore BDPPPD is an appropriate ligand for fluorescent Dy(III) complexes.

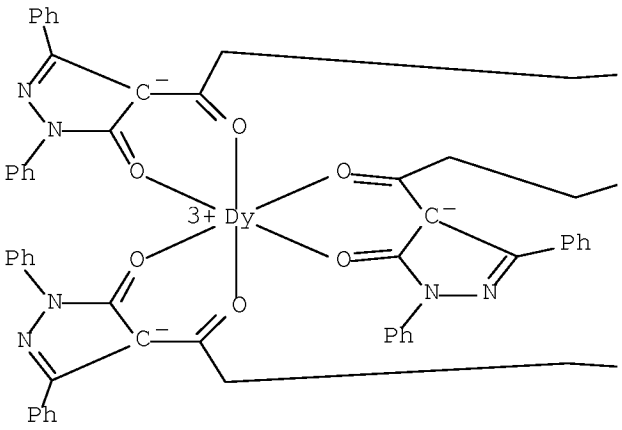
IT 444566-08-9P 444566-09-0P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and fluorescence)

IT 444566-08-9P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and fluorescence)

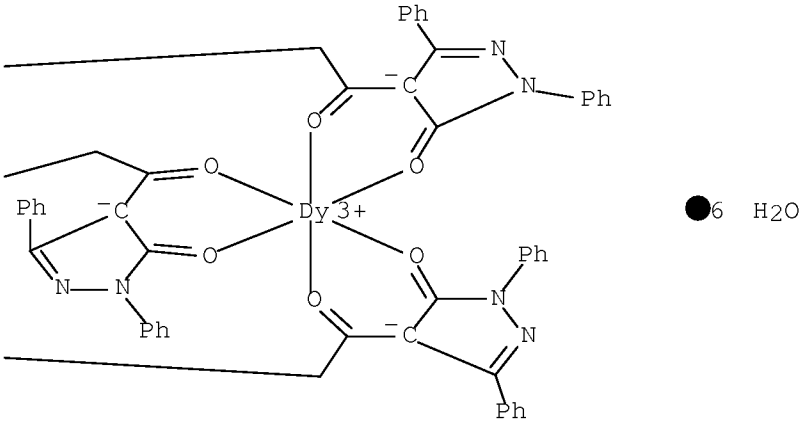
RN 444566-08-9 HCAPLUS

CN Dysprosium, tris[μ-[1,5-bis[4,5-dihydro-5-(oxo-κO)-1,3-diphenyl-1H-pyrazol-4-yl]-1,5-pentanedionato(2-)-κO:κO']]di-, hexahydrate (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



L86 ANSWER 5 OF 28 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 2001:550666 HCAPLUS Full-text
DN 135:324865
TI Hyper-Rayleigh scattering in the Fourier domain for higher precision: Correcting for multiphoton fluorescence with demodulation and phase data
AU Wostyn, Kurt; Binnemans, Koen; Clays, Koen; Persoons, Andre
CS Department of Chemistry, Laboratory for Chemical and Biological Dynamics, Centre for Research in Molecular Electronics and Photonics, University of Leuven, Louvain, B-3001, Belg.
SO Review of Scientific Instruments (2001), 72(8), 3215-3220
CODEN: RSINAK; ISSN: 0034-6748
PB American Institute of Physics
DT Journal
LA English
AB An improved exptl. technique for the suppression of the multiphoton fluorescence contribution in hyper-Rayleigh scattering expts. for the determination of the 1st hyperpolarizability of mols. in solution is presented. This improvement allows for a better correction for the

fluorescence artifact, so as to eliminate any overestimation for the value of the 1st hyperpolarizability. The measurement of the demodulation only of the fluorescence as a function of modulation frequency [Olbrechts et al., Rev. Sci. Instrum. 69, 2233(1998)] is now complemented by the measurement of the phase lag between the intermediate scattering and the time-delayed fluorescence. From the simultaneous data reduction of demodulation and phase shift toward the hyperpolarizability, fluorescence contribution, and fluorescence lifetime, an improvement in precision of 1 order of magnitude is demonstrated. This level of precision was used to show the relative impact of f-orbital filling and ligands on the mol. 2nd-order nonlinear optical response of lanthanide complexes containing a hemicyanine chromophore.

IT 162521-61-1 226918-54-3 255904-95-1
RL: PRP (Properties)
(hyper-Rayleigh scattering in Fourier domain for higher precision: correcting for multiphoton fluorescence with demodulation and phase data)

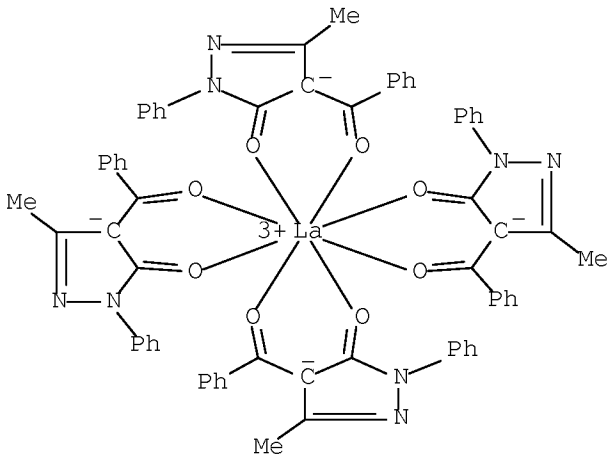
IT 162521-61-1
RL: PRP (Properties)
(hyper-Rayleigh scattering in Fourier domain for higher precision: correcting for multiphoton fluorescence with demodulation and phase data)

RN 162521-61-1 HCAPLUS

CN Pyridinium, 4-[(1E)-2-[4-(dimethylamino)phenyl]ethenyl]-1-hexadecyl-, tetrakis[4-(benzoyl-κO)-2,4-dihydro-5-methyl-2-phenyl-3H-pyrazol-3-onato-κO3]lanthanate(1-) (9CI) (CA INDEX NAME)

CM 1

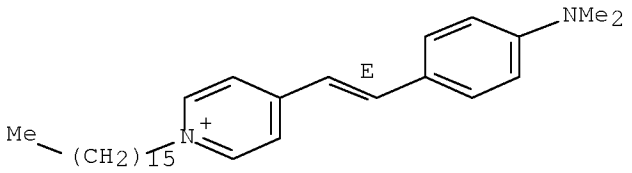
CRN 157058-67-8
CMF C68 H52 La N8 O8
CCI CCS



CM 2

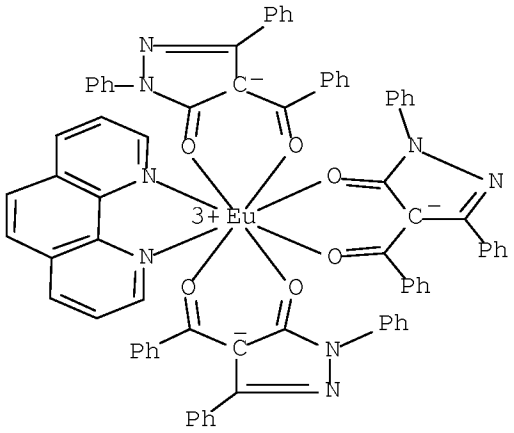
CRN 155806-31-8
CMF C31 H49 N2

Double bond geometry as shown.




RE.CNT 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

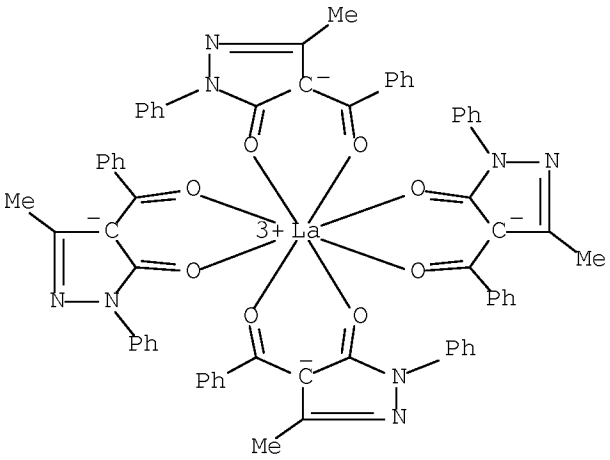
L86 ANSWER 6 OF 28 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 2001:491790 HCAPLUS Full-text
DN 135:235391
TI Fluorescence properties of the complexes of 1,3-diphenyl-4-acyl-5-pyrazolones with Eu(III)
AU Li, Jianyu; Zeng, Hong; Yu, Qun; Liu, Guangzhong
CS Department of Chemical Engineering, Beijing Technology and Commerce University, Beijing, 100037, Peop. Rep. China
SO Guangpuxue Yu Guangpu Fenxi (2001), 21(2), 208-211
CODEN: GYGFED; ISSN: 1000-0593
PB Beijing Daxue Chubanshe
DT Journal
LA Chinese
AB The binary and ternary Eu(III) complexes were prepared with four 1,3-diphenyl-4-acyl-5-pyrazolones as ligands (the four acyls are benzoyl, phenylacetyl, butyryl and chloroacetyl, and the compds. are represented by DPBZP, DPPAP, DPBTP, DP-CAP, resp.). The composition of the complexes was determined by chemical and elemental anal., and the structure of the complexes was characterized by FTIR spectra. The fluorescence spectra of the complexes were measured. The complexes emit with the characteristic fluorescence of Eu(III). The fluorescence intensity of the complexes are closely related to the substituents at the acyl at 4-position in pyrazolone ring of the ligands, depending on the ligands, the descending order of the fluorescence intensity is DPBZP > DPPAP > DPBTP > DPCAP, and the 2nd ligand, 1,10-phenanthroline, remarkably intensifies the fluorescence of the complexes.
IT 321559-74-4P 321559-76-6P 321559-80-2P
321559-84-6P 321559-87-9P 359417-86-0P
359417-87-1P 359417-88-2P 359417-89-3P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and fluorescence spectrum of)
IT 321559-74-4P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and fluorescence spectrum of)
RN 321559-74-4 HCAPLUS
CN Europium, tris[4-(benzoyl-κO)-2,4-dihydro-2,5-diphenyl-3H-pyrazol-3-onato-κO3](1,10-phenanthroline-κN1,κN10)- (CA INDEX NAME)



L86 ANSWER 7 OF 28 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 2001:335432 HCAPLUS Full-text
DN 135:144338
TI Molecular First Hyperpolarizability Data for Lanthanate Complexes Containing the Hemicyanine Chromophore
AU Wostyn, Kurt; Binnemans, Koen; Clays, Koen; Persoons, Andre
CS Laboratory for Chemical and Biological Dynamics Centre for Research in Molecular Electronics and Photonics Department of Chemistry, University of Leuven, Louvain, B-3001, Belg.
SO Journal of Physical Chemistry B (2001), 105(22), 5169-5173
CODEN: JPCBFK; ISSN: 1089-5647
PB American Chemical Society
DT Journal
LA English
AB The mol. nonlinear optical polarizability, or 1st hyperpolarizability β, of four lanthanate complexes containing the hemicyanine 1-hexadecyl-4-{2-[4-(dimethylamino)phenyl]ethenyl}pyridinium chromophore was determined with high precision. The exptl. measurement of the phase shift and the demodulation between immediate hyper-Rayleigh scattering and time-delayed multiphoton fluorescence as a function of modulation frequency allows for the simultaneous data anal. of phase and demodulation toward precise values for fluorescence-free hyperpolarizability, multiphoton fluorescence contribution, and fluorescence lifetime. One order of magnitude improvement in precision was obtained with respect to the earlier anal. of demodulation data only. This level of precision was used to show the relative impact of f-orbital filling and ligands on the mol. 2nd-order nonlinear optical response of lanthanate complexes containing a hemicyanine chromophore. Implications for the earlier conclusions about better film formation for lanthanate complexes are discussed.
IT 162521-61-1 226918-54-3 255904-95-1
RL: PRP (Properties)
(mol. first hyperpolarizability data for lanthanate complexes containing hemicyanine chromophore)
IT 162521-61-1
RL: PRP (Properties)
(mol. first hyperpolarizability data for lanthanate complexes containing hemicyanine chromophore)
RN 162521-61-1 HCAPLUS
CN Pyridinium, 4-[(1E)-2-[4-(dimethylamino)phenyl]ethenyl]-1-hexadecyl-, tetrakis[4-(benzoyl-κO)-2,4-dihydro-5-methyl-2-phenyl-3H-pyrazol-3-onato-κO3]lanthanate(1-) (9CI) (CA INDEX NAME)

CM 1

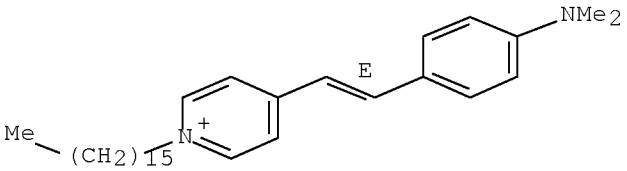
CRN 157058-67-8
CMF C68 H52 La N8 O8
CCI CCS



CM 2

CRN 155806-31-8
CMF C31 H49 N2

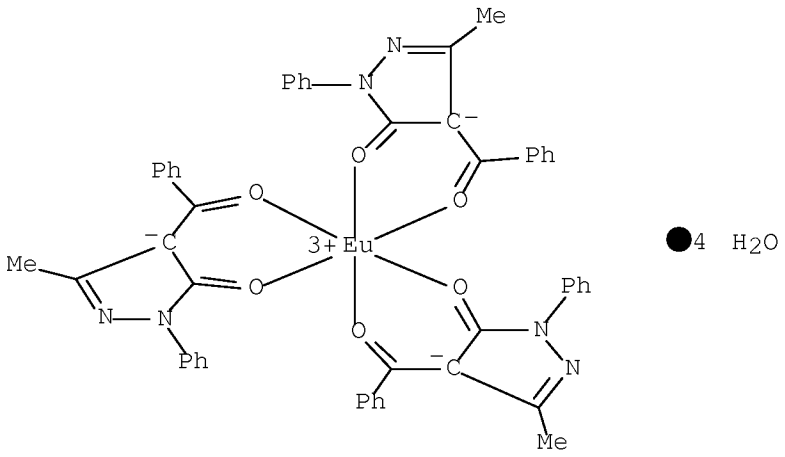
Double bond geometry as shown.



RE.CNT 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L86 ANSWER 8 OF 28 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 2001:14899 HCAPLUS Full-text
DN 134:172338
TI A study of the fluorescence of some newly synthesized europium complexes with pyrazolone derivatives
AU Qian, Dong-Jin; Leng, Wei-Nan; Zhang, Yuan; Chen, Zhong; Van Houten, J.
CS Institute of Colloid and Interface Chemistry, Shandong University, Jinan, 250100, Peop. Rep. China
SO Spectrochimica Acta, Part A: Molecular and Biomolecular Spectroscopy (2000), 56A(14), 2645-2651
CODEN: SAMCAS; ISSN: 1386-1425
PB Elsevier Science B.V.
DT Journal

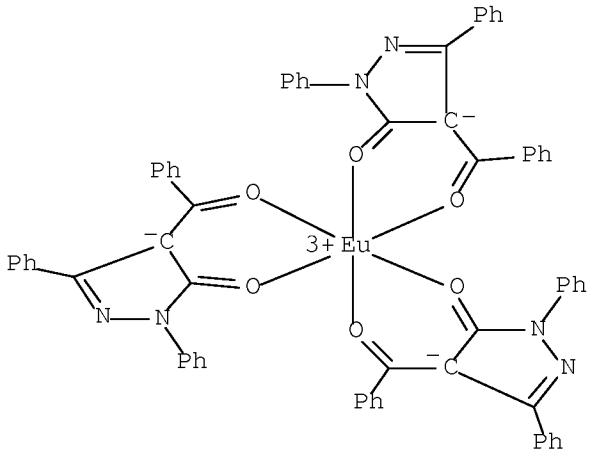
LA English
OS CASREACT 134:172338
AB Some europium complexes with pyrazolone derivs. and 1,10-phenanthroline were synthesized and characterized. The Eu ion coordinated to O atoms of the pyrazolone derivs. and to N atoms of 1,10-phenanthroline. A strongly ligand-localized UV absorption leads to the Eu-centered emissions between 580 and 750 nm which were assigned as the 5D0 → 7F0.1.2.3.4 and 5D1 → 7F3.4 transitions. A low site symmetry for the Eu3+ ion was confirmed from the observation of 5D0 → 7F0 emission and from the splitting of the other bands. In contrast to many Eu complexes that were studied, a rather weak emission was measured by introduction of a Schiff base to form a ternary complex with the pyrazolone derivative The long fluorescence lifetimes of these complexes suggest an energy transfer process from ligands to Eu3+ ion through the triplet state of the ligands.
IT 325689-30-3P 325689-31-4P 325689-33-6P
325689-34-7P 325689-35-8P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and fluorescence of)
IT 325689-30-3P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and fluorescence of)
RN 325689-30-3 HCAPLUS
CN Europium, tris[4-(benzoyl-κO)-2,4-dihydro-5-methyl-2-phenyl-3H-pyrazol-3-onato-κO3]-, tetrahydrate (9CI) (CA INDEX NAME)




RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L86 ANSWER 9 OF 28 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 2000:844692 HCAPLUS Full-text
DN 134:125182
TI Fluorescent properties of the complexes of 1,3-diphenyl-4-acyl-5-pyrazolones with Eu(III)
AU Li, Jianyu; Zeng, Hong; Yu, Qun; Liu, Guangzhong
CS Department of Chemical Engineering, Beijing Technology and Commerce University, Beijing, 100037, Peop. Rep. China
SO Huaxue Shiji (2000), 22(5), 266-268
CODEN: HUSHDR; ISSN: 0258-3283
PB Huagongbu Huaxue Shiji Xinsizhan

DT Journal
LA Chinese
AB The binary and ternary Eu(III) complexes were prepared with four 1,3-diphenyl-4-acyl-5-pyrazolones as ligands. Their fluorescent properties are discussed. The complexes emit the characteristic fluorescence of Eu(III). The fluorescence intensities of the complexes are closely related to the substituents (Ph, benzyl, Pr, CH2Cl) of the acyl at 4-position in pyrazolone ring of the ligands (DPBZP, DPBAP, DPBTP and DPCAP, resp.). The fluorescence intensities of the complexes are in the order of DPBZP > DPBAP > DPBTP > DPCAP. The 2nd ligand, 1,10-phenanthroline, remarkably enhance the intensities of the fluorescence.
IT 321559-72-2P 321559-74-4P 321559-76-6P
321559-78-8P 321559-80-2P 321559-82-4P
321559-84-6P 321559-87-9P 321561-83-5P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and fluorescence)
IT 321559-72-2P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and fluorescence)
RN 321559-72-2 HCAPLUS
CN Europium, tris[4-(benzoyl-κO)-2,4-dihydro-2,5-diphenyl-3H-pyrazol-3-onato-κO3]- (CA INDEX NAME)



L86 ANSWER 10 OF 28 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 2000:739240 HCAPLUS Full-text
DN 134:50624
TI Synthesis and characteristics of (thienyltrifluoroacetonato)(acylpyrazolonato)(phenanthroline)europium chelate
AU Zhu, Wei-Guo; Yuan, Tong-Suo; Wei, Xiao-Qiang; Lu, Zhi-Yun; Huang, Yan; Liu, Yu; Xie, Ming-Gui
CS Department of Chemistry, Sichuan University, Chengdu, 610064, Peop. Rep. China
SO Gaodeng Xuexiao Huaxue Xuebao (2000), 21(10), 1527-1529
CODEN: KTHPDM; ISSN: 0251-0790
PB Gaodeng Jiaoyu Chubanshe
DT Journal
LA Chinese
AB A novel chelate Eu(TTA)2(PMTBBP)Phen , which contained ligand 1-phenyl-3-methyl-4-(4'-tert-butylbenzoyl)-5-pyrazolone (HPMTBBP), 4,4,4-trifluoro-1-(2-

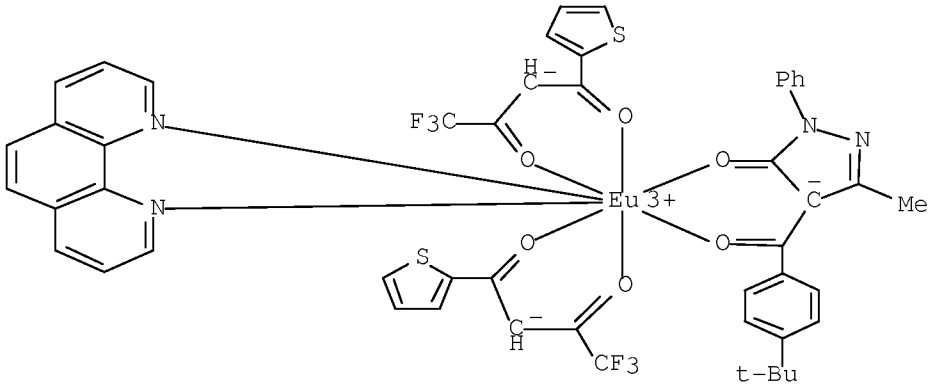
thienyl)-1,3-butanedione (HTTA) and phenanthroline (Phen), was synthesized. Its chemical structure was elucidated by IR, UV, 1H NMR, MS, DSC and elemental anal. The influence of acylpyrazolone on fluorescent intensity of the new chelate was studied. The results showed that Eu(TTA)2(PMTBBP)Phen had more excellent PL properties and better film formation than that of Eu(TTA)3Phen.

IT 286385-05-5P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and fluorescence)

IT 286385-05-5P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and fluorescence)

RN 286385-05-5 HCAPLUS

CN Europium, [4-[4-(1,1-dimethylethyl)benzoyl-κO]-2,4-dihydro-5-methyl-2-phenyl-3H-pyrazol-3-onato-κO3](1,10-phenanthroline-κN1,κN10)bis[4,4,4-trifluoro-1-(2-thienyl)-1,3-butanedionato-κO,κO']- (9CI) (CA INDEX NAME)




L86 ANSWER 11 OF 28 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 2000:480576 HCAPLUS Full-text

DN 133:343745

TI Fluorescence and hypersensitivity of Eu(III)-diketonate-diphenylguanidine ternary complexes

AU Li, Cun-xiong

CS Chemistry Department, Guizhou Normal University, Guiyang, 550001, Peop. Rep. China

SO Guizhou Shifan Daxue Xuebao, Ziran Kexueban (2000), 18(1), 57-61
CODEN: GSZKFE; ISSN: 1004-5570

PB Guizhou Shifan Daxue Xuebao, Ziran Kexueban Bianjibu

DT Journal

LA Chinese

OS CASREACT 133:343745

AB Five ternary compds. of Eu(III)-Diketonate-Diphenylguanidine, Eu(L)4·DPG (L = acetylacetone, benzoylacetone, dibenzoylacetone, 4-Benzoyl-1-phenyl-3-methylpyrazol-5-one, 4,4,4-trifluoro-1-(2-thienyl)- 1,3-butanedione) were prepared and characterized by elemental anal., TGA and IR spectra. Low temperature fluorescence emission spectra of these compds. were located and assigned; the site symmetry of Eu(III) in the compds. were analyzed from the ligand field splitting of 5D0 → 7F0.1,2,4 transitions base on the group theor. method and Judd-Ofelt model.

IT 303744-52-7P

RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation. thermal decomposition and fluorescence spectrum of)

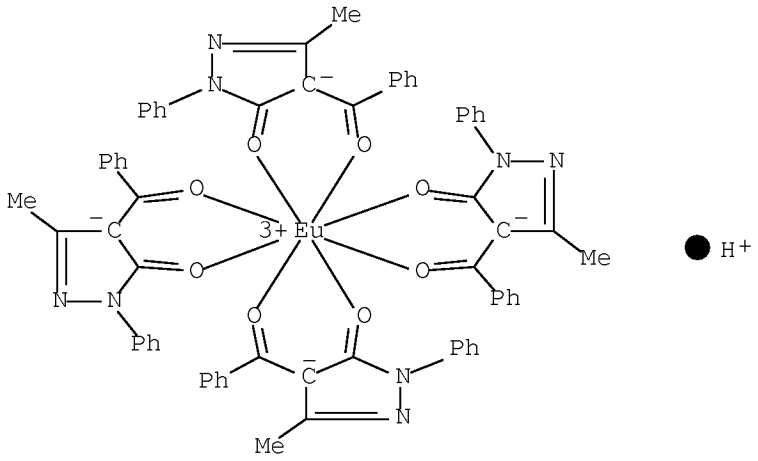
IT 303744-52-7P
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation. thermal decomposition and fluorescence spectrum of)

RN 303744-52-7 HCAPLUS

CN Europate(1-), tetrakis[4-(benzoyl-κO)-2,4-dihydro-5-methyl-2-phenyl-3H-pyrazol-3-onato-κO3]-, hydrogen, compd. with N,N'-diphenylguanidine (1:1) (9CI) (CA INDEX NAME)

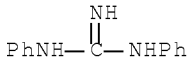
CM 1

CRN 92586-27-1
CMF C68 H52 Eu N8 O8 . H
CCI CCS



CM 2

CRN 102-06-7
CMF C13 H13 N3



L86 ANSWER 12 OF 28 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 1999:407687 HCAPLUS Full-text

DN 131:80170

TI Microcavity effect from a novel terbium complex Langmuir-Blodgett film

AU Huang, Yan Yi; Yu, An Chi; Huang, Chun-Hui; Gan, Liang Bing; Zhao, Xin Sheng; Lin, Yong; Zhang, Bei

CS State Key Lab. Rare Earth Mater. Chem. Applications, Peking Univ., Beijing, 100871, Peop. Rep. China

SO Advanced Materials (Weinheim, Germany) (1999), 11(8), 627-629
CODEN: ADVMEW; ISSN: 0935-9648
PB Wiley-VCH Verlag GmbH
DT Journal
LA English

AB The use of microcavities as optical resonators was developed as a potential high-d. light source for optical communications and color displays. A Tb complex (tris(1-phenyl-3-methyl-4-hexadecanoyl-5- pyrazolone)terbium ethanolate) was used for the fabrication of a new λ/2 microcavity. The Tb complex LB film had excellent transfer properties. A 317.5 nm UV laser was used as the exciting source, while the fluorescence intensity and lifetime of the complex were measured simultaneously. Important microcavity effects determined were the enhancement of the fluorescence intensity and the lifetime shortening for a series of resonant microcavities.

IT 190452-13-2
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
(microcavity effect in Langmuir-Blodgett films of)

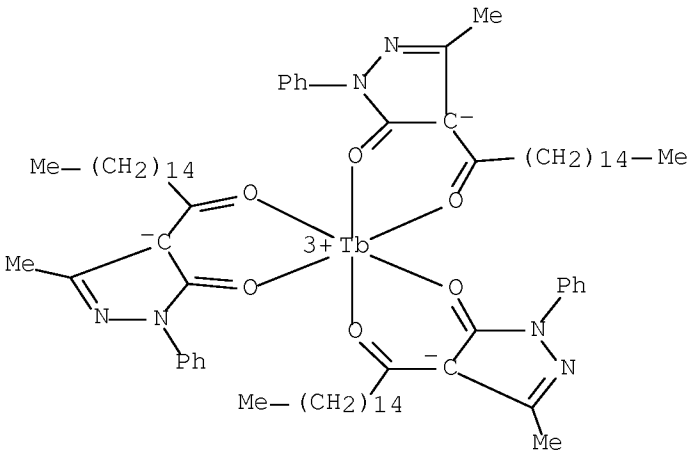
IT 190452-13-2
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
(microcavity effect in Langmuir-Blodgett films of)

RN 190452-13-2 HCAPLUS

CN Terbium, tris[2,4-dihydro-5-methyl-4-[1-(oxo-κO)hexadecyl]-2-phenyl-3H-pyrazol-3-onato-κO3]-, compd. with ethanol (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 190452-12-1
CMF C78 H117 N6 O6 Tb
CCI CCS




CM 2

CRN 64-17-5
CMF C2 H6 O

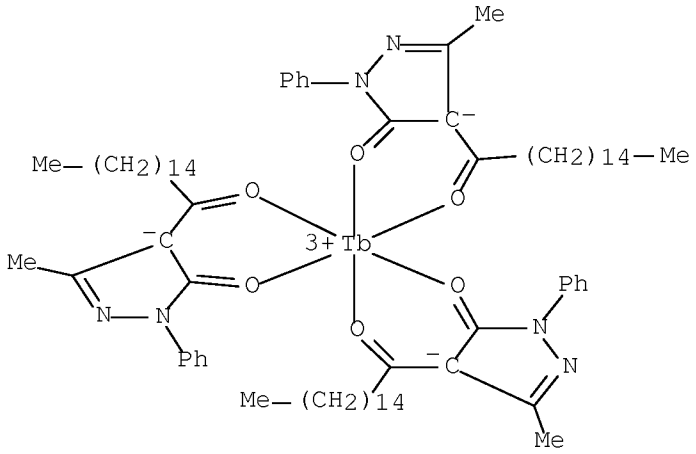
$H_3C—CH_2—OH$

RE.CNT 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L86 ANSWER 13 OF 28 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 1998:614746 HCAPLUS Full-text
DN 129:323071
TI Microcavity of strongly fluorescent terbium complex LB film
AU Huang, Yan-Yi; Yu, An-Chi; Huang, Chun-Hui; Zhao, Xin-Sheng; Gan, Liang-Bing; Lin, Yong; Zhang, Bei
CS State Key Lab. Rare Earth Materials Chem. & Applications, Peking Univ., Beijing, 100871, Peop. Rep. China
SO Gaodeng Xuexiao Huaxue Xuebao (1998), 19(9), 1375-1377
CODEN: KTHPDM; ISSN: 0251-0790
PB Gaodeng Jiaoyu Chubanshe
DT Journal
LA Chinese
AB A new λ/2 resonant microcavity in which a terbium complex is used as emitting material and silver mirrors as reflectors has been fabricated successfully by LB technique. Two most important microcavity effects, fluorescence intensity enhancement and life time shortening, have been observed simultaneously for the first time from a series of resonant microcavities.
IT 190452-13-2
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
(microcavity of strongly fluorescent terbium complex LB film)
IT 190452-13-2
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
(microcavity of strongly fluorescent terbium complex LB film)
RN 190452-13-2 HCAPLUS
CN Terbium, tris[2,4-dihydro-5-methyl-4-[1-(oxo-κO)hexadecyl]-2-phenyl-3H-pyrazol-3-onato-κO3]-, compd. with ethanol (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 190452-12-1
CMF C78 H117 N6 O6 Tb
CCI CCS



CM 2

CRN 64-17-5
CMF C2 H6 O

L86 ANSWER 14 OF 28 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 1997:736645 HCAPLUS Full-text
DN 128:94810
TI Monolayer assemblies and optical properties of europium(III) complexes with β-diketones containing various substituents
AU Qian, Dong-Jin; Nakahara, Hiroo; Fukuda, Kiyoshige; Yang, Kong-Zhang
CS Institute of Colloid & Interface Chemistry, Shangdong University, Jinan, 250100, Peop. Rep. China
SO Journal of Colloid and Interface Science (1997), 194(1), 174-182
CODEN: JCISA5; ISSN: 0021-9797
PB Academic Press
DT Journal
LA English
AB Eu(III) complexes with β-diketones containing various substituents were newly synthesized and their monolayer behaviors on the H2O surface were studied in situ by a Brewster angle microscopy (BAM) together with surface pressure-area isotherms. Some BAM images look like a thin soap film on the fiat surface, consisting of gas and liquid phases. The monolayer assemblies of these complexes could be deposited by both LB and horizontal lifting techniques. The emission probability from the excited singlet state 5D1 increased in the film as compared to the lowest excited state 5D0, and the sym. forbidden transition 5D0 → 7F0 was enhanced in comparison with those in the solns. and the crystals. This effect on the fluorescence was observed significantly for the complex with an asym. substituted ligand rather than that with a sym. substituted 1. These results can be ascribed to the fact that the thermal deactivation of the higher excited state is decreased and also the symmetries of these complexes are slightly distorted in the monolayer assemblies.
IT 201029-17-6P 201029-18-7P 201029-20-1P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(monolayer assemblies and optical properties of europium(III) complexes with β-diketones containing various substituents with fluorescence and UV spectra)

IT 201029-17-6P

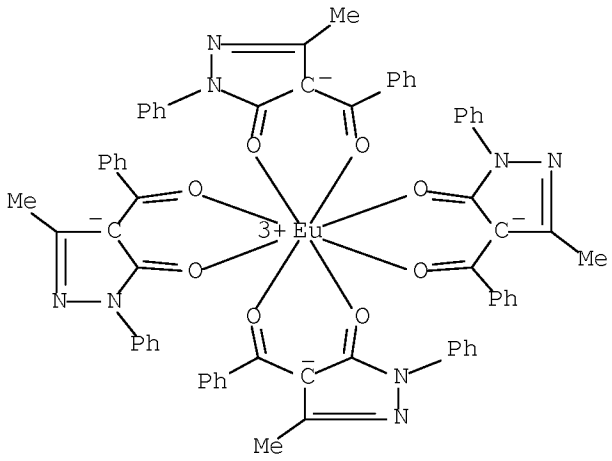
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(monolayer assemblies and optical properties of europium(III) complexes with β-diketones containing various substituents with fluorescence and UV spectra)

RN 201029-17-6 HCAPLUS

CN 1-Octadecanaminium, N,N-dimethyl-N-octadecyl-, tetrakis[4-(benzoyl-κO)-2,4-dihydro-5-methyl-2-phenyl-3H-pyrazol-3-onato-κO3]europate(1-) (9CI) (CA INDEX NAME)

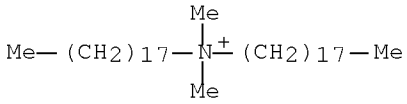
CM 1

CRN 141026-30-4
CMF C68 H52 Eu N8 O8
CCI CCS



CM 2

CRN 14357-21-2
CMF C38 H80 N



RE.CNT 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L86 ANSWER 15 OF 28 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 1997:483133 HCAPLUS Full-text

DN 127:170792
TI Determination of lutetium by fluorimetry, using BPMPHD and CTMAB
AU Yang, Jing He; Jie, Nian Qin; Lin, Cun Guo; Wang, Min; Ma, Wen Yuan
CS Dep. Chem., Shandong Univ., Jinan, 250100, Peop. Rep. China
SO Mikrochimica Acta (1997), 127(1-2), 85-88
CODEN: MIACAQ; ISSN: 0026-3672
PB Springer
DT Journal
LA English
AB Lu(III) formed an association compound with a new synthetic reagent, 1,6-bi(1'-phenyl-3'-methyl-5'-pyrazolone-4')hexanedione (BPMPHD), and cetyltrimethylammonium bromide (CTMAB). The compound enhanced the natural fluorescence of BPMPHD remarkably, upon which a new fluorescence method was developed for determining Lu in rare earth (RE) samples. The determination range was 1.80 + 10-7-8.8 + 10-6 g/mL. The determination limit was 29 ng/mL. The composition of the ion associate was [Lu(BPMPHD)2]-CTMAB+.
IT 193603-30-4
RL: FMU (Formation, unclassified); PRP (Properties); FORM (Formation, nonpreparative)
(lutetium determination by fluorometry based on enhanced fluorescence of)
IT 193603-30-4
RL: FMU (Formation, unclassified); PRP (Properties); FORM (Formation, nonpreparative)
(lutetium determination by fluorometry based on enhanced fluorescence of)
RN 193603-30-4 HCAPLUS
CN 1-Hexadecanaminium, N,N,N-trimethyl-, bis[1,6-bis[4,5-dihydro-3-methyl-5-(oxo-κO)-1-phenyl-1H-pyrazol-4-yl]-1,6-hexanedionato(2-)-κO,κO']lutetate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 193603-29-1
CMF C52 H48 Lu N8 O8
CCI CCS

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 6899-10-1
CMF C19 H42 N

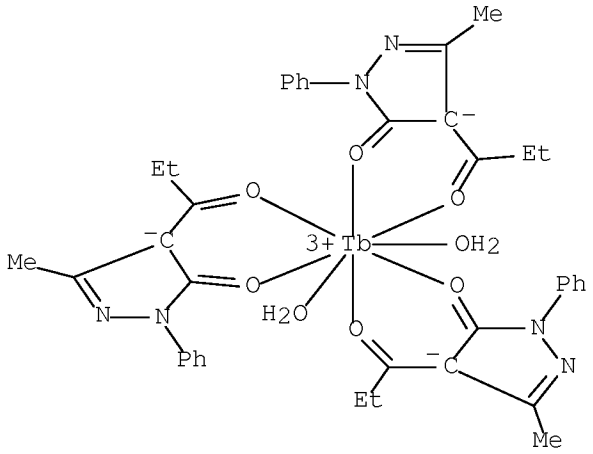
$Me_3{}^{+}N-(CH_2)_{15}-Me$

L86 ANSWER 16 OF 28 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 1997:169304 HCAPLUS Full-text
DN 126:245927
TI Room-temperature fluorescence, phosphorescence and crystal structure of 4-acyl pyrazolone lanthanide complexes: Ln(L)3·2H2O
AU Zhou, Dejian; Li, Qin; Huang, Chunhui; Yao, Guangqing; Umetani, Shigeo; Matsui, Masakazu; Ying, Liming; Yu, Anchi; Zhao, Xinsheng
CS State KeyLab. Rare Earth Materials Chem. Applications, Peking Univ., Beijing, 100871, Peop. Rep. China
SO Polyhedron (1997), 16(8), 1381-1389
CODEN: PLYHDE; ISSN: 0277-5387

PB Elsevier
DT Journal
LA English
AB Ternary mixed 4-acylpyrazolone lanthanide complexes: Ln(L)3·2H2O [where Ln = Tb3+ or Gd3+, HL = 1-phenyl-3-methyl-4-acetyl-5-pyrazolone (PMAP), 1-phenyl-3-methyl-4-propionyl-5-pyrazolone (PMPP), 1-phenyl-3-methyl-4-isobutyryl-5-pyrazolone (PMIP), 1-phenyl-3-methyl-4- neovaleryl-5-pyrazolone (PMNP) and 1-phenyl-3-methyl-4-benzoyl-5- pyrazolone (PMBP)] were synthesized and characterized by FTIR spectra, UV-visible spectra and DTA-TGA. Room-temperature phosphorescence was observed from the Gd3+ complexes by excitation of the sample with the 4th harmonic frequency of a Nd:YAG laser beam (λ = 266 nm) and the triplet energies of the pyrazolone ligands were evaluated. Both the fluorescence intensity and fluorescence lifetime of the Tb3+ complexes depend on the structure of the ligands and explanations are presented. The crystal structure of [Tb(PMPP)3·2H2O]·EtOH was determined by x-ray diffraction. The structure was refined to R = 0.064 (Rw = 0.073). The complex is mononuclear and the central terbium ion is coordinated by eight oxygen atoms to form a square-antiprism coordination polyhedron, six of which are from the three bidentate pyrazolone ligands and the other two are from the two coordination water mols.
IT 188494-09-9P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and crystal structure)
IT 125170-45-8P 184834-10-4P 184834-18-2P
184834-23-9P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and fluorescence)
IT 184834-06-8P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and mol. structure and fluorescence)
IT 85961-49-5P 184833-88-3P 184833-91-8P
184833-95-2P 184833-98-5P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and phosphorescence)
IT 188494-09-9P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and crystal structure)
RN 188494-09-9 HCAPLUS
CN Terbium, diaquatris[2,4-dihydro-5-methyl-4-[1-(oxo-κO)propyl]-2-phenyl-3H-pyrazol-3-onato-κO3]-, (SA-8-121'2'31''2''3)-, compd. with ethanol (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 184834-06-8
CMF C39 H43 N6 O8 Tb
CCI CCS



CM 2

CRN 64-17-5
CMF C2 H6 O

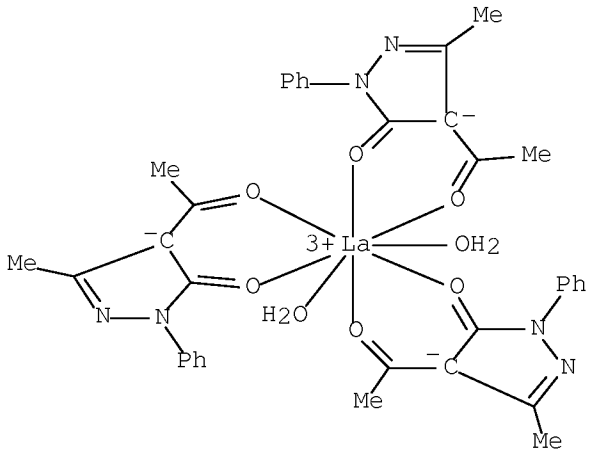
L86 ANSWER 17 OF 28 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 1996:653451 HCAPLUS Full-text
DN 126:52681
TI Excited State Properties and Intramolecular Energy Transfer of Rare-Earth Acylpyrazolone Complexes
AU Ying, Liming; Yu, Anchi; Zhao, Xinsheng; Li, Qin; Zhou, Dejian; Huang, Chunhui; Umetani, Shigeo; Matasai, Masakazu
CS Department of Chemistry, Peking University, Beijing, 100871, Peop. Rep. China
SO Journal of Physical Chemistry (1996), 100(47), 18387-18391
CODEN: JPCHAX; ISSN: 0022-3654
PB American Chemical Society
DT Journal
LA English
AB The time-resolved emission spectra and lifetimes of a series of lanthanide acylpyrazolones complexes were measured under 266 nm laser excitation. The phosphorescence spectra of the triplet states of the Gd(III) complexes were observed at room temperature The relative efficiencies of intramol. energy transfer from the triplet state of different ligands to the 5D4 level of Tb3+ ion have been quant. calculated on the basis of the exchange-interaction theory. The properties and functions of ligand-localized excited singlet and triplet states have been discussed; the triplet energy level is one of the key parameters in intramol. energy transfer. The illumination efficiency of the Tb(III) complex is associated with two factors: one is the lifetimes of the singlet and triplet states of the ligand and the 5D4 level of terbium ion, and the other is the intersystem-crossing rate of the ligand and the energy transfer rate from triplet state to the 5D4 level.
IT 85961-45-1 85961-49-5 125170-45-8
165406-69-9 184833-68-9 184833-73-6

184833-78-1 184833-88-3 184833-91-8
184833-95-2 184833-98-5 184834-06-8
184834-10-4 184834-18-2 184834-23-9
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
(excited state properties and intramol. energy transfer of rare-earth acylpyrazolone complexes)

IT 85961-45-1
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
(excited state properties and intramol. energy transfer of rare-earth acylpyrazolone complexes)

RN 85961-45-1 HCAPLUS

CN Lanthanum, tris[4-(acetyl-κO)-2,4-dihydro-5-methyl-2-phenyl-3H-pyrazol-3-onato-κO3]diaqua- (CA INDEX NAME)




RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L86 ANSWER 18 OF 28 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 1995:283005 HCAPLUS Full-text
DN 122:95270
TI Investigation on lanthanide binuclear complexes of 1,5-bis(1'-phenyl-3'-methyl-5'-pyrazolone-4')-1,5-pentanedione and 2,2-'-bipyridine
AU Li, Xiaojing; Yan, Lan; Wanyan, Hui; Li, Xiangming; Yang, Rudong
CS Dep. Chem., Lanzhou Univ., Lanzhou, 730000, Peop. Rep. China
SO Polyhedron (1994), 13(24), 3317-21
CODEN: PLYHDE; ISSN: 0277-5387
PB Elsevier
DT Journal
LA English
AB The coordination of 1,5-bis-(1'-phenyl-3'-methyl-5'-pyrazolon-4'-yl)-1,5-pentanedione (BPMPPD) and 2,2'-bipyridine (bipy) with lanthanide ions in H2O-alc. solution was studied. Binuclear complexes of the types: Ln2(BPMPPD)3(bipy)2·nH2O (n = 2 for Y, n = 4 for Eu, Gd, Dy, Ho, Er, Tm and Yb); Ln2(BPMPPD)3bipy·nH2O (n = 10 for La, n = 3 for Pr, Nd, Sm and Tb) were formed. The compds. were characterized by elemental anal., molar conductance, IR UV, 1H NMR spectroscopy, TGA and fluorescence spectra.

IT 160628-06-8P 160628-07-9P 160628-08-0P
160628-09-1P 160628-10-4P 160628-11-5P

160628-12-6P 160628-13-7P 160628-14-8P
160628-15-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and thermal decomposition of)

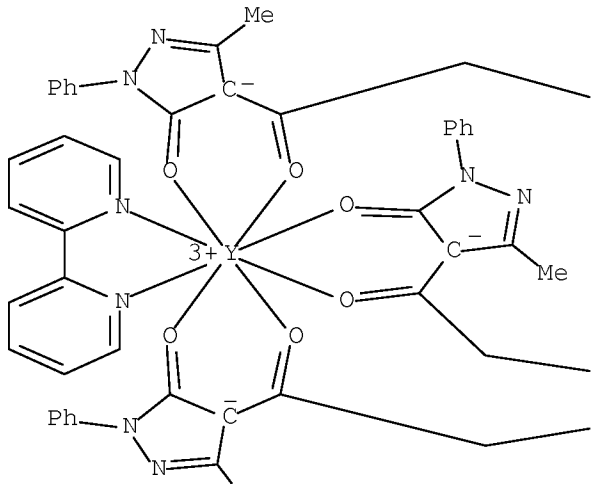
IT 160628-16-0P 160628-17-1P 160628-18-2P
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation, thermal decomposition and fluorescence of)

IT 160628-06-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and thermal decomposition of)

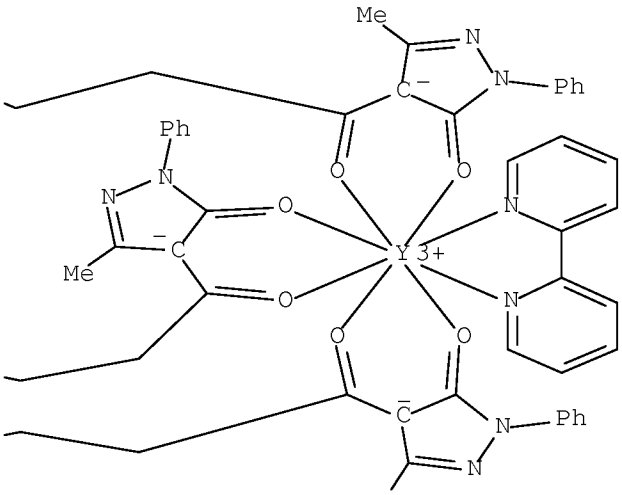
RN 160628-06-8 HCAPLUS

CN Yttrium, bis(2,2'-bipyridine-N,N')tris[μ-[1,5-bis(4,5-dihydro-3-methyl-5-oxo-1-phenyl-1H-pyrazol-4-yl)-1,5-pentanedionato(2-)-O1,O1':O5,O5']]di-, dihydrate (9CI) (CA INDEX NAME)

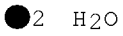
PAGE 1-A



PAGE 1-B




PAGE 2-A


PAGE 2-B


L86 ANSWER 19 OF 28 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 1994:472352 HCAPLUS Full-text
DN 121:72352
TI Preparation and properties of the solid complexes of terbium(III) with bis(pyrazolonyl)pentanedionate and quaternary ammonium salt
AU Li, Xiaojing; Wan, Yanhui; Yan, Lan; Qi, Yulan
CS Dep. Chem., Lanzhou Univ., Lanzhou, 730000, Peop. Rep. China
SO Lanzhou Daxue Xuebao, Ziran Kexueban (1992), 28(4), 78-83
CODEN: LCTHAF; ISSN: 0455-2059
DT Journal
LA Chinese
AB Three complexes were synthesized and characterized by elemental anal., molar conductance, IR spectra, UV-visible spectra, thermoanal. fluorescence spectra, etc. Compns. of these complexes are NH4[Tb(BPMPPD)2], CTA[Tb(BPMPPD)2] and CP[Tb(BPMPPD)2], [CTA = cetyltrimethylammonium, CP= cetylpyridinium, BPMPPD = 1,5-bis(4,5-dihydro- 3-methyl-5-oxo-1-phenyl-1H-pyrazol-4-yl)-1,5-pentanedione]. These complexes are .apprx.1:1 electrolytes in alc. solution The IR spectra of the complexes show that BPMPPD acts as a tetradentate ligand which combines with Tb ion through the O of C=O and C-O. The coordination number of the Tb ion in the complexes is 8. Results of thermo-anal. show that

the complexes are thermally stable up to 300°. Fluorescence spectra show that CTA[Tb(BPMPPD)2] has very strange and characteristic fluorescence; for this reason, it is possible that the content of trace Tb ion be measured by fluorescence anal.

IT 143054-17-5 156341-32-1
RL: PRP (Properties)
(fluorescence of)

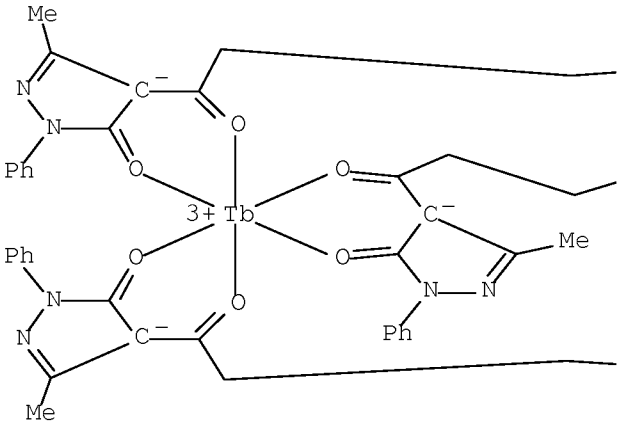
IT 137830-07-0P 137830-08-1P 143738-25-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and fluorescence and thermal decomposition of)

IT 143054-17-5
RL: PRP (Properties)
(fluorescence of)

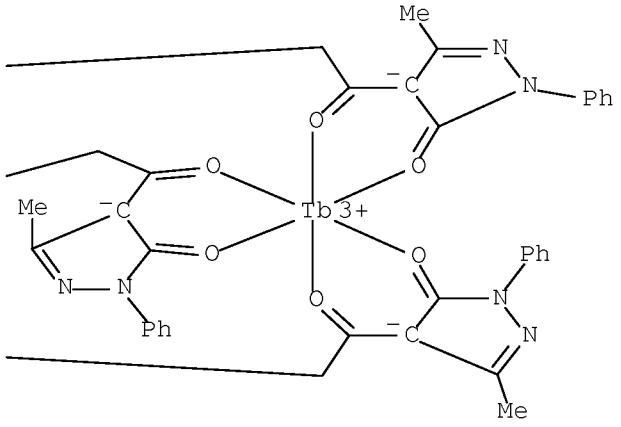
RN 143054-17-5 HCAPLUS

CN Terbium, tris[μ-[1,5-bis(4,5-dihydro-3-methyl-5-oxo-1-phenyl-1H-pyrazol-4-yl)-1,5-pentanedionato(2-)-O1,O1':O5,O5']]di- (9CI) (CA INDEX NAME)

PAGE 1-A



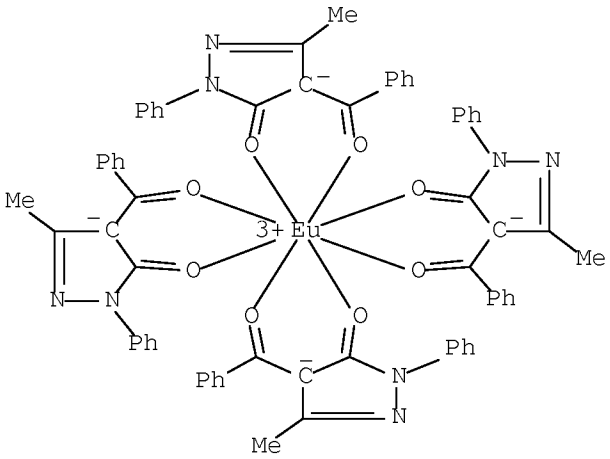
PAGE 1-B



L86 ANSWER 20 OF 28 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 1994:334017 HCAPLUS Full-text
DN 120:334017
TI Optical and electrical properties of the Langmuir-Blodgett films prepared from a rare earth coordination compound
AU Huang, C. H.; Wang, K. Z.; Zhu, X. Y.; Wu, N. Z.; Xu, G. X.; Xu, Y.; Liu, Y. Q.; Zhu, D. B.; Liu, Y. W.; Xue, Z. Q.
CS State Key Lab. Rare Earth Mater. Chem. Appl., Peking Univ., Beijing, 100871, Peop. Rep. China
SO Solid State Communications (1994), 90(3), 151-4
CODEN: SSCOA4; ISSN: 0038-1098
DT Journal
LA English
AB The stable floating Langmuir film of N-hexadecylpyridinium tetrakis-(1-phenyl-3-methyl-4-benzoyl-pyrazolone-5-one)europium formed at air-water interface, could be deposited at a surface pressure of 10 mN/m onto various hydrophilic substrates of fused quartz, single crystal calcium fluoride and transparent indium tin oxide (ITO) glass successively with a transfer ratio of around unity. LB films with more than 50 layers in z or Y type were obtained. The films were characterized by UV, fluorescent, XPS and low angle x-ray diffraction. The elec. conductivity of the film is reported as well.
IT 141026-31-5
RL: PRP (Properties)
(elec. and optical properties of Langmuir-Blodgett film of)
IT 141026-31-5
RL: PRP (Properties)
(elec. and optical properties of Langmuir-Blodgett film of)
RN 141026-31-5 HCAPLUS
CN Pyridinium, 1-hexadecyl-, tetrakis(4-benzoyl-2,4-dihydro-5-methyl-2-phenyl-3H-pyrazol-3-onato-O,O')europate(1-) (9CI) (CA INDEX NAME)

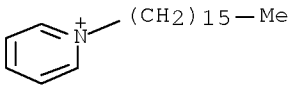
CM 1

CRN 141026-30-4
CMF C68 H52 Eu N8 O8
CCI CCS



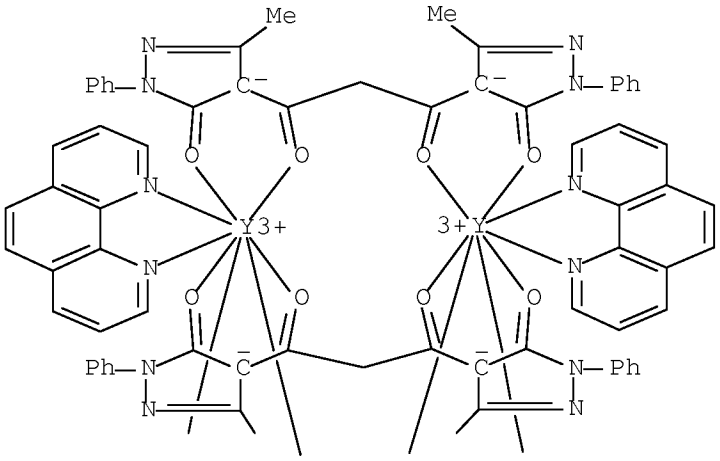

CM 2

CRN 7773-52-6
CMF C21 H38 N

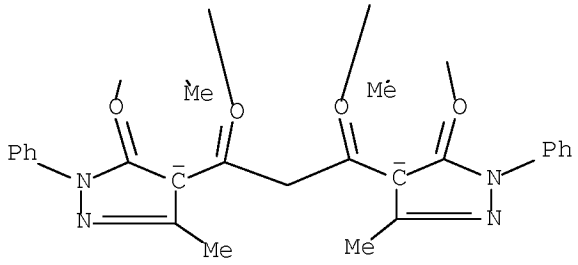


L86 ANSWER 21 OF 28 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 1994:259799 HCAPLUS Full-text
DN 120:259799
TI Chelate complexes of 1,3-bis-(1'-phenyl-3'-methyl-5'-pyrazolone-4')-1,3-propanedione and 1,10-phenanthroline with lanthanide
AU Li, Xiaojing; Yan, Lan; Hui, Wanyan; Yang, Rudong
CS Dep. Chem., Lanzhou Univ., Lanzhou, 730000, Peop. Rep. China
SO Polyhedron (1993), 12(16), 2021-5
CODEN: PLYHDE; ISSN: 0277-5387
DT Journal
LA English
AB A new ligand, 1,3-bis-(1'-phenyl-3'-methyl-5'-pyrazolone-4')-1,3- propanedione (H2L), and Ln2L3(phen)2·nH2O (Ln = Y, La, Pr, Nd, Sm-Yb; phen = 1,10-phenanthroline, n = 3-6) were prepared by the reaction of H2L and phen with the metal nitrate in an aqueous alc. solution A binuclear structure of the complexes is proposed based upon elemental analyses, molar conductance, IR and 1H NMR spectra. The complexes were also characterized by UV spectra and TG-DTA. Fluorescence spectra show that Pr, Sm, Eu, Tb, Dy and Tm complexes have line emissions of metal ions.
IT 154626-19-4P 154626-20-7P 154626-21-8P
154626-22-9P 154626-23-0P 154626-24-1P
154626-25-2P 154626-26-3P 154626-45-6P
154626-46-7P 154626-47-8P 154626-48-9P
154626-49-0P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and fluorescence of)
IT 154626-19-4P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and fluorescence of)
RN 154626-19-4 HCAPLUS
CN Yttrium, tris[μ-[1,3-bis(4,5-dihydro-3-methyl-5-oxo-1-phenyl-1H-pyrazol-4-yl)-1,3-propanedionato(2-)-O1,O1':O3,O3']]bis(1,10-phenanthroline-N1,N10)di-, hexahydrate (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



●6 $H_2O$

L86 ANSWER 22 OF 28 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 1992:583666 HCAPLUS Full-text
DN 117:183666
TI Synthesis of ion association complexes of lanthanide ions with 1,5-bis(1'-phenyl-3'-methylpyrazol-5'-on-4'-yl)-1,5-pentanedione and cetyltrimethyl ammonium bromide and their UV, IR, proton NMR, fluorescence and thermal analysis studies
AU Li, Xiaojing; Yang, Rudong
CS Dep. Chem., Lanzhou Univ., Lanzhou, 73000, Peop. Rep. China
SO Polyhedron (1992), 11(12), 1545-50
CODEN: PLYHDE; ISSN: 0277-5387
DT Journal
LA English
AB The preparation of 13 novel solid ion-associated complexes of lanthanides with 1,5-bis(1'-phenyl-3'-methylpyrazol-5'-on-4'-yl)-1,5-pentanedione ( H2BPMPPD) and cetyltrimethylammonium bromide (CTAB) is reported. IR, 1H NMR, UV, fluoroescence spectra and thermogravimetric data were recorded and are

discussed. The composition of these complexes is determined as CTA[Ln(BPMPPD)2] (Ln = Y, La, Pr, Nd, Sm-Yb), and a structure is suggested.

IT 143738-18-5P 143738-19-6P 143738-20-9P
143738-21-0P 143738-22-1P 143738-23-2P
143738-24-3P 143738-25-4P 143738-26-5P
143738-27-6P 143754-18-1P 143778-77-2P
143778-78-3P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and spectral and thermal properties of)

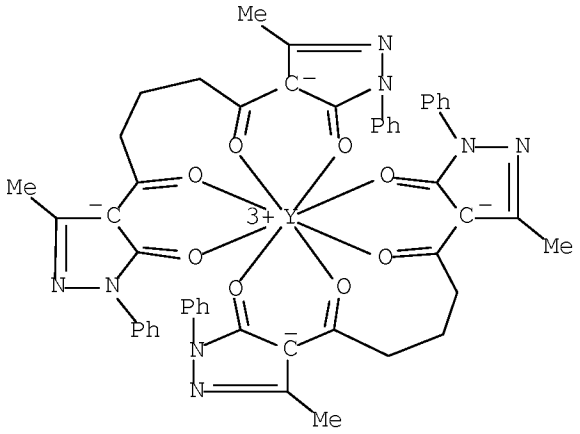
IT 143738-18-5P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and spectral and thermal properties of)

RN 143738-18-5 HCAPLUS

CN 1-Hexadecanaminium, N,N,N-trimethyl-, bis[1,5-bis(4,5-dihydro-3-methyl-5-oxo-1-phenyl-1H-pyrazol-4-yl)-1,5-pentanedionato(2-)-O,O',O'',O''']yttrate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 137890-77-8
CMF C50 H44 N8 O8 Y
CCI CCS



CM 2

CRN 6899-10-1
CMF C19 H42 N

L86 ANSWER 23 OF 28 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 1992:502960 HCAPLUS Full-text

DN 117:102960

TI Studies on rare earth coordination compounds. (IX). Preparation and characterization of complexes of rare earths with BPMPPD

AU Xing, Yacheng; Li, Xiaojing; Yan, Lan; Yang, Rudong

CS Dep. Chem., Lanzhou Univ., Lanzhou, 730000, Peop. Rep. China
SO Gaodeng Xuexiao Huaxue Xuebao (1992), 13(1), 14-17
CODEN: KTHPDM; ISSN: 0251-0790
DT Journal
LA Chinese
AB Fifteen new solid complexes of rare earth (RE) synthesized by the reaction of RE earth nitrates and (NH4)2Ce(SO4)3 with 1,5-bis(1'-phenyl-3'- methylpyrazol-5'-on-4'-yl)pentane-1,5-dione (H2BPMPPD) in the aqueous solution of EtOH were prepared RE2(BPMPPD)3.nH2O (RE = La, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Y; n = 3-7), Ce(BPMPPD)2.6H2O, and Y1.9Eu0.1(BPMPPD)3.8H2O were obtained and characterized by elemental anal., chemical anal., IR, DTA-TG, 1H NMR, and fluorescence.
IT 143054-16-4DP, solid solution with terbium analog
143054-17-5DP, solid solution with gadolinium analog
143054-18-6P
RL: PRP (Properties); PREP (Preparation)
(formation and fluorescence of)
IT 143054-03-9P 143054-04-0P 143054-05-1P
143054-06-2P 143054-07-3P 143054-08-4P
143054-09-5P 143054-10-8P 143054-11-9P
143054-12-0P 143054-13-1P 143054-14-2DP, solid solution with europium analog 143054-15-3DP, solid solution with yttrium analog 143054-21-1P 143054-22-2P
143070-55-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and fluorescence and IR spectra and thermal decomposition of)
IT 143054-16-4DP, solid solution with terbium analog
RL: PRP (Properties); PREP (Preparation)
(formation and fluorescence of)
RN 143054-16-4 HCAPLUS
CN Gadolinium, tris[μ-[1,5-bis(4,5-dihydro-3-methyl-5-oxo-1-phenyl-1H-pyrazol-4-yl)-1,5-pentanedionato(2-)-O1,O1':O5,O5']]di- (9CI) (CA INDEX NAME)

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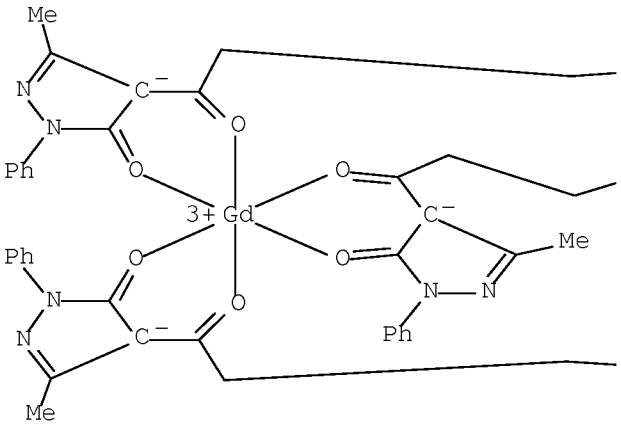
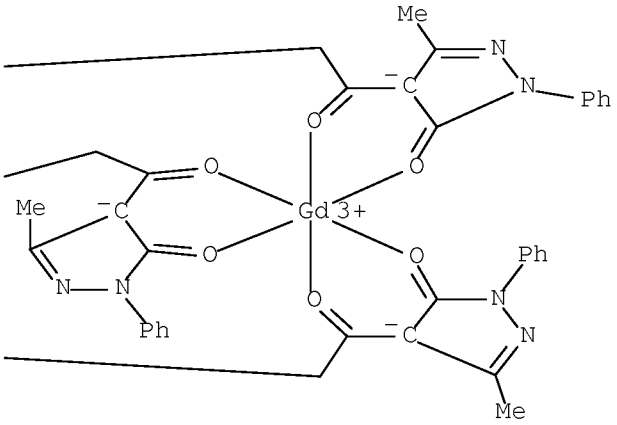
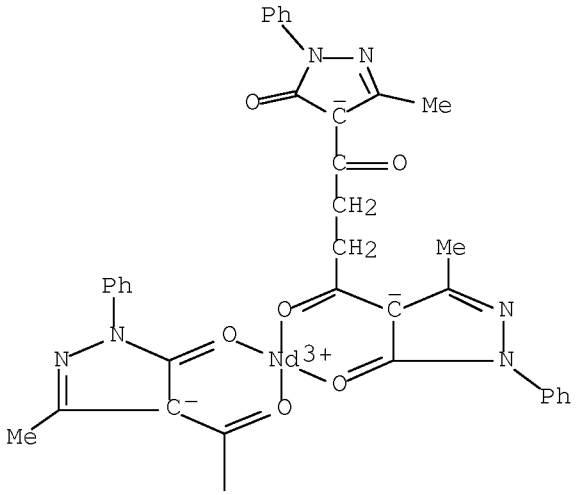


PAGE 1-B

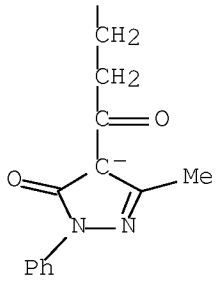



L86 ANSWER 24 OF 28 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 1992:98113 HCAPLUS Full-text
DN 116:98113
TI Rare earth coordination compounds. VIII. Synthesis and characterization of complexes of rare earth with 1,4-bis-(1'-phenyl-3'-methyl-5'-pyrazolone-4')-1,4-butanedione
AU Li, Xiaojing; Wanyan, Hui; Dong, Wenji; Yang, Rudong; Yang, Wenguo
CS Dep. Chem., Lanzhou Univ., Lanzhou, 730000, Peop. Rep. China
SO Wuji Huaxue Xuebao (1991), 7(2), 169-74
CODEN: WHUXEO; ISSN: 1001-4861
DT Journal
LA Chinese
AB Fifteen rare earth (except Sc, Pm) complexes have been synthesized by the reaction of rare earth nitrates with 1,4-bis-(1'-phenyl-3'-methyl-5'-pyrazolon-4'-yl)-1,4-butanedione (H2L) in ethanol aqueous solution at pH = 5-6. According to chemical anal. and elemental anal., the composition of complexes are RE(L)(HL).nH2O (RE = Y, n = 4; RE = La, n = 5; RE = Pr, Nd, Sm, Eu, Gd, n = 3), RE2L3.nH2O (I) (RE = Tb, Dy, Ho, Er, Tm, Yb, Lu, n = 5), and CeL2.4H2O. The structure and properties of these complexes were studied by chemical anal., IR, UV, proton magnetic resonance, fluorescence spectrum and thermogravimetric anal. On the basis of all above investigation, it is proposed that I are binuclear.
IT 138954-35-5P 138954-36-6P 138954-37-7P
138954-38-8P 138978-12-8P 138978-13-9P
138978-16-2P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and fluorescence of)
IT 138954-32-2P 138954-33-3P 138954-34-4P
138978-14-0P 138978-15-1P 138978-17-3P
138978-18-4P 138978-19-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
IT 138954-35-5P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and fluorescence of)
RN 138954-35-5 HCAPLUS
CN Neodymate(1-), bis[1,4-bis(4,5-dihydro-3-methyl-5-oxo-1-phenyl-1H-pyrazol-4-yl)-1,4-butanedionato(2-)-O1,O1']-, hydrogen, trihydrate, (T-4)- (9CI) (CA INDEX NAME)

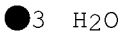
PAGE 1-A



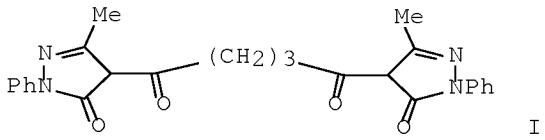

PAGE 2-A








L86 ANSWER 25 OF 28 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 1992:14726 HCAPLUS Full-text
DN 116:14726
TI Preparation and characterization of the solid complexes of rare earths with 1,5-bis(1'-phenyl-3'-methyl-5'-pyrazolone-4')pentanedione-[1,5] and cetylpyridinium bromide
AU Li, Xiaojing; Wanyan, Hui; Mu, Weiyun; Yang, Rudong
CS Dep. Chem., Lanzhou Univ., Lanzhou, 730000, Peop. Rep. China
SO Gaodeng Xuexiao Huaxue Xuebao (1991), 12(5), 580-4
CODEN: KTHPDM; ISSN: 0251-0790
DT Journal
LA Chinese
GI



I

AB Thirteen new solid complexes were synthesized and characterized by elemental and thermal anal., molar conductivity, IR, UV, and fluorescence spectra, etc. The stoichiometry of complexes are CP[Y(BPMPPD)2]·5H2O, CP[La(BPMPPD)2]·2H2O, and CP[Ln(BPMPPD)2] (Ln = Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb; CP = cetylpyridinium; H2BPMPPD = I). The decomposition temperature of the coordination compds. has the tetra effect. The hypersensitive transition of Pr, Nd, Ho, Er, Tm complexes and characteristic fluorescence of Sm, Eu, Tb, Dy complexes were studied.

IT 137829-98-2P 137830-00-3P 137830-12-7P
137880-79-6P 137880-81-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and hypersensitive transition and thermal decomposition of)

IT 137830-02-5P 137830-04-7P 137830-08-1P
137830-10-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and thermal decomposition and fluorescence of)

IT 137830-06-9P 137880-83-2P 137890-79-0P
137890-82-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and thermal decomposition of)

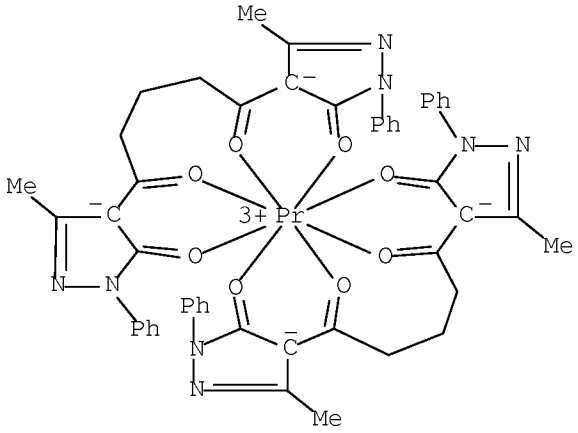
IT 137829-98-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and hypersensitive transition and thermal decomposition of)

RN 137829-98-2 HCAPLUS

CN Pyridinium, 1-hexadecyl-, bis[1,5-bis(4,5-dihydro-3-methyl-5-oxo-1-phenyl-1H-pyrazol-4-yl)-1,5-pentanedionato(2-)-O,O',O'',O''']praseodymate(1-) (9CI) (CA INDEX NAME)

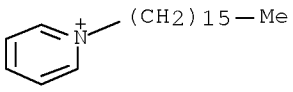
CM 1

CRN 137829-97-1
CMF C50 H44 N8 O8 Pr
CCI CCS



CM 2

CRN 7773-52-6
CMF C21 H38 N



L86 ANSWER 26 OF 28 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 1991:94043 HCAPLUS Full-text
DN 114:94043
TI Synthesis of novel mixed-ligand complexes of lanthanide ions with 1,4-bis(1'-phenyl-3'-methyl-5'-pyrazolone-4')-1,4-butanedione and 1,10-phenanthroline and their UV, IR, 1H NMR, fluorescence and thermal analysis studies
AU Li, Xiaojing; Wanyan, Hui; Dong, Wenji; Yang, Rudong
CS Dep. Chem., Lanzhou Univ., Lanzhou, 730000, Peop. Rep. China
SO Polyhedron (1990), 9(18), 2285-91
CODEN: PLYHDE; ISSN: 0277-5387
DT Journal
LA English
AB The synthesis of Ln2L3(phen)2·nH2O (Ln = Y, La, Pr, Sm-Lu; n = 4,5; H2L = 1,4-bis-(1'-phenyl-3'-methyl-5'-pyrazolon-4'-yl)-1,4-butanedione, phen = 1,10-phenanthroline) in an alc.-H2O solution is presented. The complexes are binuclear and characterized by chemical and elemental analyses, IR, UV, 1H NMR, fluorescence spectra, thermoanal., and conductance methods.
IT 131772-43-5P 131772-44-6P 131772-45-7P
131772-47-9P 131772-48-0P 131772-49-1P
131772-52-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and fluorescence and thermal decomposition of)
IT 131772-41-3P 131772-42-4P 131772-46-8P
131772-50-4P 131772-51-5P 131772-53-7P
131772-54-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

(Reactant or reagent)
(preparation and thermal decomposition of)

IT 131772-43-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and fluorescence and thermal decomposition of)

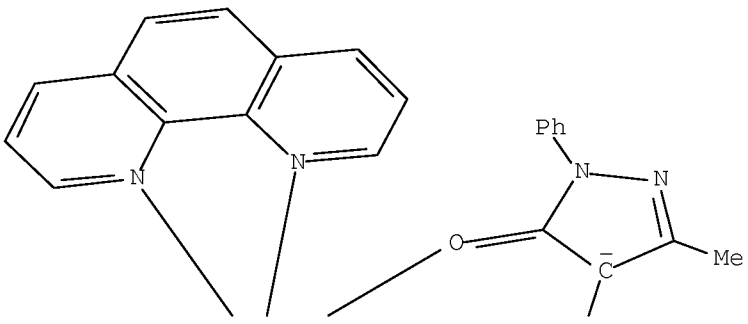
RN 131772-43-5 HCAPLUS

CN Praseodymium, tris[μ-[1,4-bis(4,5-dihydro-3-methyl-5-oxo-1-phenyl-1H-pyrazol-4-yl)-1,4-butanedionato(2-)-O1,O1':O4,O4']]bis(1,10-phenanthroline-N1,N10)di-, tetrahydrate (9CI) (CA INDEX NAME)

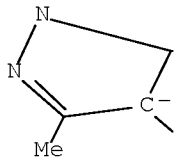
PAGE 1-A

Ph

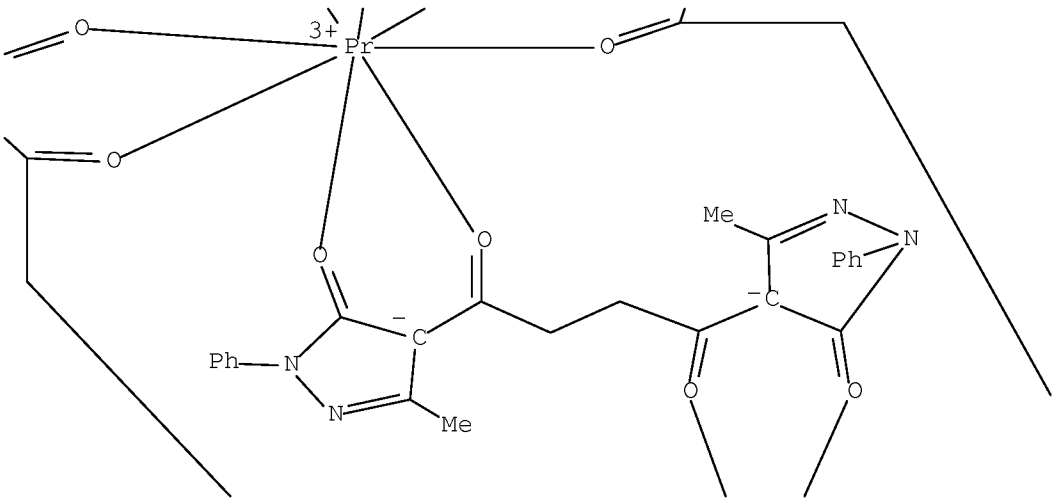
PAGE 1-B



PAGE 2-A

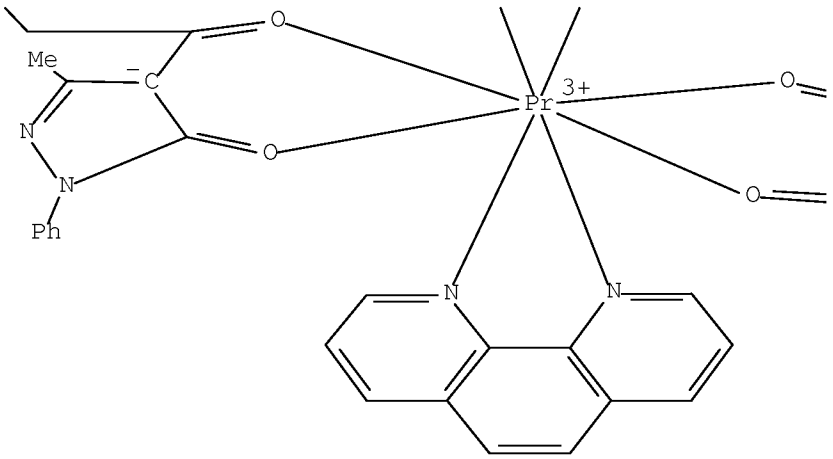



PAGE 2-B

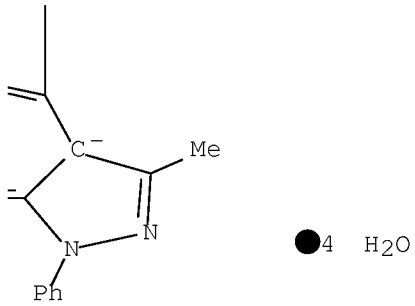



PAGE 2-C

PAGE 3-B



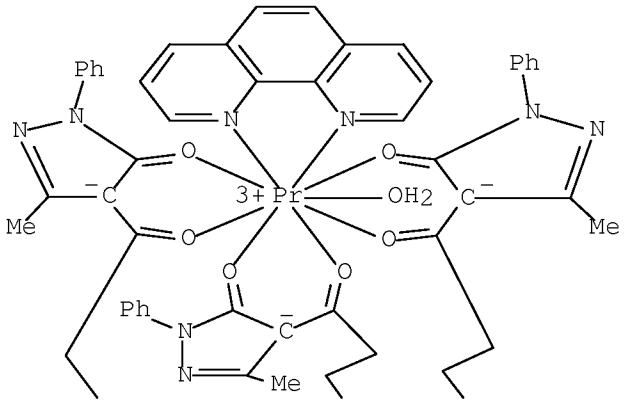

PAGE 3-C



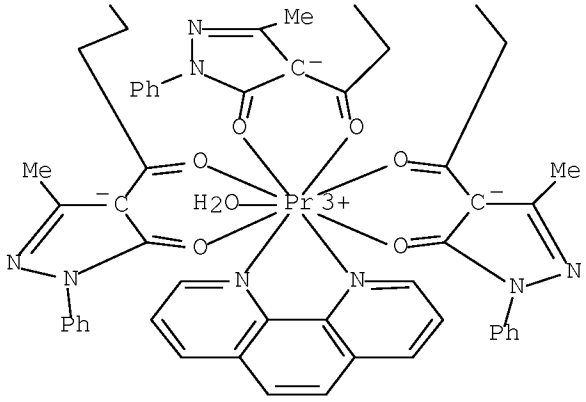

L86 ANSWER 27 OF 28 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 1990:150640 HCAPLUS Full-text
DN 112:150640
TI Rare earth coordination compounds. IV. Preparation and properties of rare earth complexes with 4-acetylbispyrazolone BPMPPD and 1,10-phenanthroline
AU Yang, Luqin; Yang, Rudong
CS Dep. Chem., Lanzhou Univ., Lanzhou, Peop. Rep. China
SO Huaxue Xuebao (1989), 47(9), 911-13
CODEN: HHHPA4; ISSN: 0567-7351
DT Journal
LA Chinese
AB RE2A3L2.H2O [RE = Y, La, Pr, Nd, Sm-Lu; H2A = 1,5-bis(1'-phenyl-3'-methyl- 5'-pyrazolon-4'-yl)-1,5-pentanedione; L = 1,10-phenanthroline, n = 4 for Y, La; n = 2 for other Re] were synthesized and characterized by elemental analyses and ligand analyses. The IR, UV-visible and, fluorescence spectra and DTA-TG curves of these complexes were recorded and discussed. The fluoroscence quantum yield of Sm, Tb complexes were measured.
IT 125933-40-6P 125933-41-7P 125933-42-8P
125933-43-9P 125933-45-1P 125933-46-2P
125933-47-3P 125933-48-4P 125933-49-5P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and fluorescence of)
IT 125933-39-3P 125933-44-0P 125933-50-8P

125933-51-9P 125933-52-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
IT 125933-40-6P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and fluorescence of)
RN 125933-40-6 HCAPLUS
CN Praseodymium, diaquatris[μ-[1,5-bis(4,5-dihydro-3-methyl-5-oxo-1-phenyl-1H-pyrazol-4-yl)-1,5-pentanedionato(2-)-O1,O1':O5,O5']]bis(1,10-phenanthroline-N1,N10)di- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



L86 ANSWER 28 OF 28 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 1990:90254 HCAPLUS Full-text
DN 112:90254
TI Studies on rare earth coordination compounds. (V). Preparation and properties of the solid complexes of rare earth with 4-acetyl-bis-

pyrazolone BPMPHD and α,α-dipyridyl

AU Yang, Luqin; Yang, Rudong

CS Dep. Chem., Lanzhou Univ., Lanzhou, Peop. Rep. China

SO Gaodeng Xuexiao Huaxue Xuebao (1989), 10(3), 225-8
CODEN: KTHPDM; ISSN: 0251-0790

DT Journal

LA Chinese

AB Ln2L3(bpy)2.nH2O (Ln = La, Y, Sm-Lu; H2L = 1,6-bis(1'-phenyl-3'-methyl-5'-pyrazolon-4'-yl)-1,6-hexanedione; bpy = 2,2'-bipyridine) and Ln12L3(bpy).4H2O (Ln1 = Pr, Nd) were prepared and characterized by IR, UV-visible and fluorescence spectra, DTA and TG. The decomposition temperature of the coordination compds. has the tetra effect and double peaks. The hypersensitive transition of Nd, Ho, Er complexes and the fluorescence of the Sm, Eu, Tb, Dy, Tm, La, Lu, Y, Gd complexes were assigned. The fluorescence quantum yield of Tb complex was measured.

IT 125171-00-8P 125171-01-9P 125171-02-0P
125171-03-1P 125171-04-2P 125171-05-3P
125171-07-5P 125171-09-7P 125171-10-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and thermal decomposition and fluorescence of)

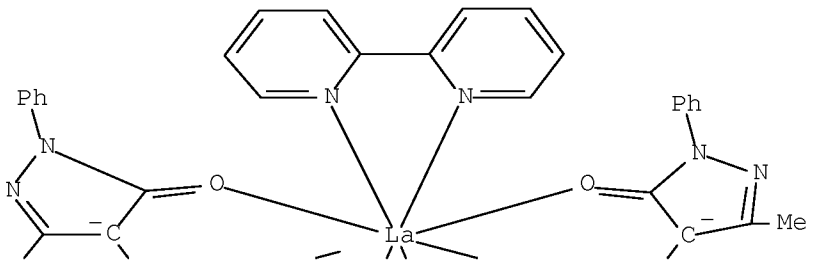
IT 125171-06-4P 125171-08-6P 125196-55-6P
125196-56-7P 125196-57-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and thermal decomposition of)

IT 125171-00-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and thermal decomposition and fluorescence of)

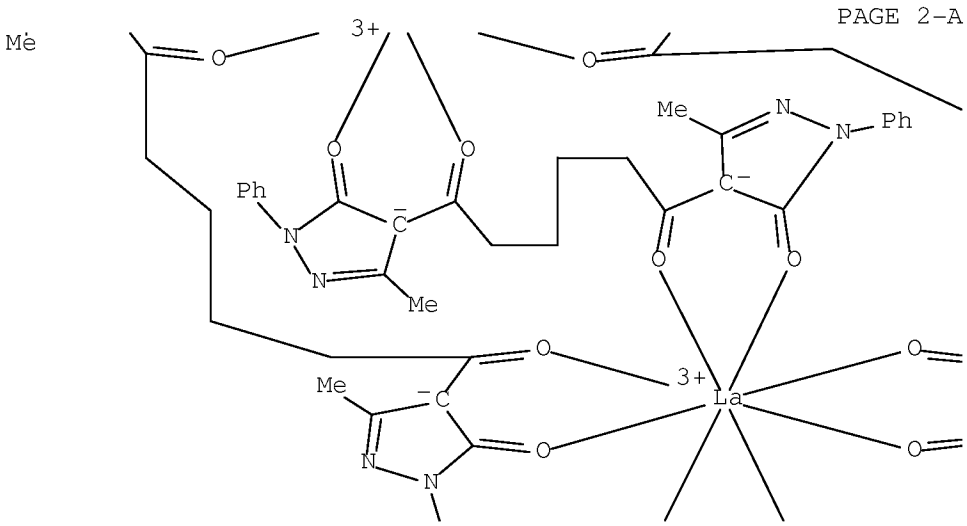
RN 125171-00-8 HCAPLUS

CN Lanthanum, bis(2,2'-bipyridine-N,N')tris[μ-[1,6-bis(4,5-dihydro-3-methyl-5-oxo-1-phenyl-1H-pyrazol-4-yl)-1,6-hexanedionato-O1,O1':O6,O6']]di-, decahydrate (9CI) (CA INDEX NAME)

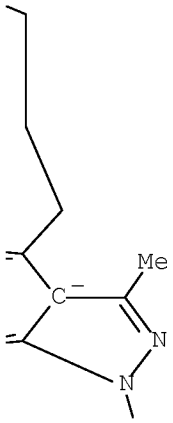
PAGE 1-A



PAGE 2-A

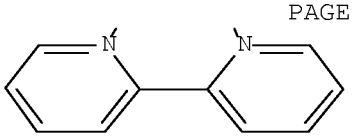



PAGE 2-B




PAGE 3-A

Ph



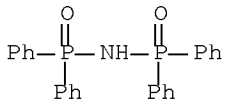

●10 $H_2O$

PAGE 3-B

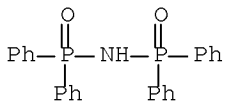
Ph

=> => d bib abs hitstr tot

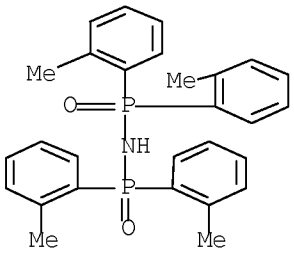
L94 ANSWER 1 OF 7 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 2003:11254 HCAPLUS Full-text
DN 138:313328
TI Assembly of hydrophobic shells and shields around lanthanides
AU Magennis, Steven W.; Parsons, Simon; Pikramenou, Zoe
CS Department of Chemistry, The University of Edinburgh, Edinburgh, EH9 3JJ, UK
SO Chemistry--A European Journal (2002), 8(24), 5761-5771
CODEN: CEUJED; ISSN: 0947-6539
PB Wiley-VCH Verlag GmbH & Co. KGaA
DT Journal
LA English
OS CASREACT 138:313328
AB Luminescent lanthanide complexes were developed, based on the assembly of bulky ligands around the lanthanide ion, to provide shell-type protection of the ion from coordinated solvent mols. Aryl-functionalized imidodiphosphinate ligands, [(2-RC6H4)2P(O)]2NH (R = H, Me) (tpip and Metpip, resp.) provide a bidentate anionic site that leads to hexacoordinate lanthanide ML3 (M = Eu, Tb, Sm, Dy and HL = tpip; M = Eu, Tb and L = Metpip) complexes in which the aryl groups surround the ion. There are twelve Ph groups around the lanthanide that act as remote (from the binding site) sensitizers for the metal ion. These ligands are suitable for sensitizing luminescence for all the lanthanides that emit in the visible range, namely, SmIII, EuIII, TbIII, DyIII. A built-in shield on the ligand is designed to provide a complete block of the approach of H2O to the lanthanide ion. The synthesis of the ligands and their lanthanides complexes as well as detailed photophys. studies of the complexes in solution and in the solid-state are presented.
IT 31239-06-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(conversion to potassium salt)
RN 31239-06-2 HCAPLUS
CN Phosphinic amide, N-(diphenylphosphinyl)-P,P-diphenyl- (CA INDEX NAME)



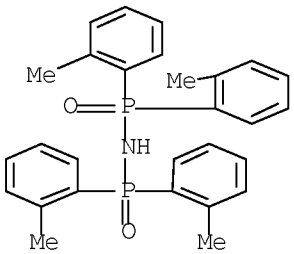
IT 168073-49-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and complexation with lanthanides and potassium)
RN 168073-49-2 HCAPLUS
CN Phosphinic amide, N-(diphenylphosphinyl)-P,P-diphenyl-, potassium salt (1:1) (CA INDEX NAME)



IT 507445-40-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and conversion to potassium salt)
RN 507445-40-1 HCAPLUS
CN Phosphinic amide, N-[bis(2-methylphenyl)phosphinyl]-P,P-bis(2-methylphenyl)- (CA INDEX NAME)



IT 507445-31-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 507445-31-0 HCAPLUS
CN Phosphinic amide, N-[bis(2-methylphenyl)phosphinyl]-P,P-bis(2-methylphenyl)-, potassium salt (9CI) (CA INDEX NAME)



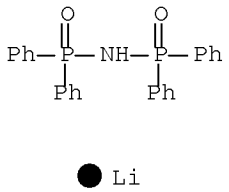
RE.CNT 61 THERE ARE 61 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L94 ANSWER 2 OF 7 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 2002:656373 HCAPLUS Full-text
DN 137:208146
TI Metal complex for organic electroluminescent element

IN Suzurisato, Yoshiyuki; Matsuura, Mitsunobu; Kita, Hiroshi
PA Konica Co., Japan
SO Jpn. Kokai Tokkyo Koho, 33 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

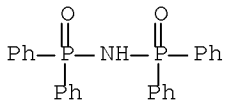
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| PI JP 2002246179 | A | 20020830 | JP 2001-46394 | 20010222 <-- |
| PRAI JP 2001-46394 | | 20010222 <-- | | |

OS MARPAT 137:208146
AB The invention refers to an electroluminescent device comprising a metal complexed with A1X1A2 [A1,2 = R1C(:O)-, R2C(:S)-, R3S(:O)2-, R4R5P(:O)-; X1 = -CH2-, -NH-, C(R6)H-; R1-6 = H or substituent; where X1 ≠ CH2 if A1,2 = R1C(:O)-; and if X1 = NH and A1,2 = R3SO2-, R3 ≠ CF3] as a luminescent material.
IT 128389-57-1
RL: DEV (Device component use); USES (Uses)
(metal complex for organic electroluminescent element)
RN 128389-57-1 HCAPLUS
CN Phosphinic amide, N-(diphenylphosphinyl)-P,P-diphenyl-, lithium salt (9CI) (CA INDEX NAME)



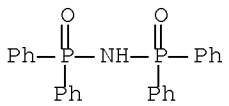

L94 ANSWER 3 OF 7 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 2000:377665 HCAPLUS Full-text
DN 133:96255
TI New molecular lanthanide materials for organic electroluminescent devices
AU Christou, V.; Salata, O. V.; Ly, T. Q.; Capecchi, S.; Bailey, N. J.; Cowley, A.; Chippindale, A. M.
CS Department of Chemistry, Inorganic Chemistry Laboratory, University of Oxford, Oxford, UK
SO Synthetic Metals (2000), 111-112, 7-10
CODEN: SYMEDZ; ISSN: 0379-6779
PB Elsevier Science S.A.
DT Journal
LA English
AB Organic electroluminescent (EL) devices based upon the new lanthanide EL material Tb[Ph2P(O)NP(O)Ph2]3 (Tbpip3) are described. Several device structures are reported and the effect of charge transporting material and layer thickness on device performance critically assessed. Device performance is optimized in a 3-layer structure containing TPD and Alq as the charge transport layers. This device has an efficiency of 0.7 cd A-1 at 20 cd m-2 at 25 V and 1 mA cm-2.
IT 135823-11-9, Sodium bis(diphenylphosphinyl)amide
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction with terbium chloride)

RN 135823-11-9 HCAPLUS
CN Phosphinic amide, N-(diphenylphosphinyl)-P,P-diphenyl-, sodium salt (9CI) (CA INDEX NAME)



RE.CNT 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L94 ANSWER 4 OF 7 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 1998:815756 HCAPLUS Full-text
DN 130:215278
TI Imidodiphosphinate ligands as antenna units in luminescent lanthanide complexes
AU Magennis, Steven W.; Parsons, Simon; Pikramenou, Zoe; Corval, Anne; Derek Woollins, J.
CS Department of Chemistry, The University of Edinburgh, Edinburgh, EH9 3JJ, UK
SO Chemical Communications (Cambridge) (1999), (1), 61-62
CODEN: CHCOFS; ISSN: 1359-7345
PB Royal Society of Chemistry
DT Journal
LA English
AB Imidodiphosphinate ligands form a hydrophobic shell around Tb and Eu ions leading to long-lived, highly luminescent complexes. The crystal structures of the complexes show unusual six-coordinate lanthanide ions where the ligands form a hydrophobic cage around the ion.
IT 168073-49-2, Potassium tetraphenyl imidodiphosphinate
RL: RCT (Reactant); RACT (Reactant or reagent)
(imidodiphosphinate ligands as antenna units in luminescent lanthanide complexes)
RN 168073-49-2 HCAPLUS
CN Phosphinic amide, N-(diphenylphosphinyl)-P,P-diphenyl-, potassium salt (1:1) (CA INDEX NAME)



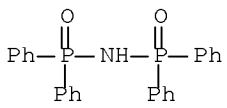
RE.CNT 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L94 ANSWER 5 OF 7 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 1997:594503 HCAPLUS Full-text
DN 127:240696

TI Fluorescent compounds
IN Bell, Colin David; Howse, John Hewer Coles; Bosworth, Nigel; James, David Martin
PA Amersham International PLC, UK
SO U.S., 30 pp., Cont.-in-part of U. S. 5,435,937.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 3

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | US 5658494 | A | 19970819 | US 1995-445858 | 19950522 <-- |
| | CA 2425105 | A1 | 19930815 | CA 1993-2425105 | 19930210 <-- |
| | CA 2425105 | C | 20060620 | | |
| | US 5435937 | A | 19950725 | US 1993-17674 | 19930212 <-- |
| | CA 2176525 | A1 | 19961123 | CA 1996-2176525 | 19960514 <-- |
| PRAI | EP 1992-301249 | A | 19920214 | <-- | |
| | US 1993-17674 | A2 | 19930212 | <-- | |
| | CA 1993-2089198 | A3 | 19930210 | <-- | |
| | US 1995-445858 | A | 19950522 | <-- | |

OS MARPAT 127:240696
AB Radioluminescent bodies are described which comprise a polymer together with a chelate of a transition or lanthanide or actinide metal ion, which body is transparent or translucent, wherein the body is radioactively labeled with tritium and has the property of emitting light or IR radiation by virtue of internally generated ionizing radiation resulting from radioactive decay of the tritium. Fluorescent body composed of a polymer together with a chelate of a transition or lanthanide or actinide metal ion, which body is transparent or translucent and has the property of emitting light or IR radiation when subjected to UV or ionizing radiation are also described wherein there is present a siloxane which improves the stability and light output or a free radical scavenger which reduces polymer degradation The compound that results from reacting p-tolyldiphenylphosphine oxide with trivalent terbium tris(dipivaloyl methide) (sic) is also claimed.
IT 31239-06-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(fluorescent and radioluminescent compds. and compns.)
RN 31239-06-2 HCAPLUS
CN Phosphinic amide, N-(diphenylphosphinyl)-P,P-diphenyl- (CA INDEX NAME)



L94 ANSWER 6 OF 7 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 1994:590859 HCAPLUS Full-text
DN 121:190859
TI Fluorescent compounds
IN Bell, Colin David; Howse, John Hewer C.
PA Amersham International PLC, UK
SO Eur. Pat. Appl., 33 pp.
CODEN: EPXXDW
DT Patent
LA English

FAN.CNT 3

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | EP 556005 | A1 | 19930818 | EP 1993-300892 | 19930208 <-- |
| | EP 556005 | B1 | 19960417 | | |
| | R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE | | | | |
| | EP 688849 | A2 | 19951227 | EP 1995-115390 | 19930208 <-- |
| | EP 688849 | A3 | 19960717 | | |
| | R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE | | | | |
| | AT 136925 | T | 19960515 | AT 1993-300892 | 19930208 <-- |
| | AT 188724 | T | 20000115 | AT 1995-115390 | 19930208 <-- |
| | CA 2089198 | A1 | 19930815 | CA 1993-2089198 | 19930210 <-- |
| | CA 2089198 | C | 20040831 | | |
| | CA 2425105 | A1 | 19930815 | CA 1993-2425105 | 19930210 <-- |
| | CA 2425105 | C | 20060620 | | |
| PRAI | EP 1992-301249 | A | 19920214 <-- | | |
| | EP 1993-300892 | A3 | 19930208 <-- | | |
| | CA 1993-2089198 | A3 | 19930210 <-- | | |

OS MARPAT 121:190859

AB Compds. are described which are produced by reacting an imido reactant described by the general formula O:Q(R)2N:Z (Q may be the same or different in different parts of the mol. and is selected from P, As, or Sb; R may be the same or different in different parts of the mol. and selected from aromatic or heterocyclic rings which may be substituted or unsubstituted, and 1 group R may alternatively be a copolymerizable group; and Z = QR3 or an oligophosphonyl group) with a chelate of a transition, lanthanide, or actinide metal to produce a product which fluoresces on exposure to UV radiation. Polymer bodies containing the products are also described which fluoresce on exposure to radiation, as are polymer bodies containing chelates of transition, lanthanide, or actinide metals which emit light as a result of exposure to internally generated (e.g., from tritium contained in the body) ionizing radiation.

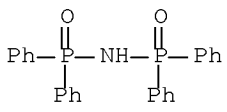
IT 31239-06-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and reaction of, in fluorescent compound preparation)

RN 31239-06-2 HCAPLUS

CN Phosphinic amide, N-(diphenylphosphinyl)-P,P-diphenyl- (CA INDEX NAME)



L94 ANSWER 7 OF 7 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 1983:224602 HCAPLUS Full-text

DN 98:224602

OREF 98:33995a,33998a

TI Fluorescent properties of aromatic complexes with rare earths and other Group IIIB elements

AU Kallistratos, George; Kallistratos, U.; Muendner, H.

CS Fac. Med., Univ. Ioannina, Ioannina, Greece

SO Chimika Chronika (1982), 11(3), 249-66

CODEN: CMCRCZ; ISSN: 0366-693X

DT Journal

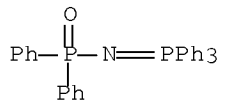
LA English

AB A number of aromatic complexes with rare earths and other elements of Group IIIa of the periodical system were synthesized. Many of these complexes exhibit a strong monochromatic fluorescence when excited with UV light. The formation of complexes is indicated through their physicochem. properties. Three mechanisms which could be responsible for the enhancement of the fluorescence were investigated. The complexes reported possess very important phys., chemical and biol. properties which could be applied in several fields of science.

IT 2156-69-6D, rare earth and uranium complexes
RL: PRP (Properties)
(fluorescence of)

RN 2156-69-6 HCAPLUS

CN Phosphinic amide, P,P-diphenyl-N-(triphenylphosphoranylidene)- (7CI, 8CI, 9CI) (CA INDEX NAME)



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(FILE 'HCAPLUS' ENTERED AT 13:02:56 ON 09 APR 2008)

DEL HIS

L1 1 S US20060035110/PN OR (US2005-537315# OR WO2003-GB5303 OR GB200
E KATHIRGAMANATHAN/AU
L2 129 S E6,E7
E POOPATHY/AU
E BACK E1
E SURENDRAKUMAR/AU
L3 42 S E8-E15
E SIVAGNANASUNDRAM/AU
L4 6 S E1,E2,E4
E BACK E1
E GEMMELL/AU
E GEMMELL P/AU
L5 8 S E4,E5
E GANESHAMURUGAN/AU
L6 24 S E4,E6
E SUBRAMANIAM/AU
L7 1 S E3
E SUBRAMANIAM G/AU
E KUMARAVERI/AU
L8 15 S E4-E7
E MUTTULINGHAM/AU
E MUTHULINGHAM/AU
E MUTHULINGAM/AU
E PARTHEEPAN/AU
L9 11 S E4,E5
E ARUMUGAM/AU
L10 1 S E3
E ARUMUGAM P/AU
L11 27 S E3,E4
E SURESH/AU
L12 7 S E3

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                E SURESH S/AU
L13          320 S E3-E9
L14            1 S E37
                E SUTHERALINGAM/AU
                E SELVARANJAN/AU
L15            8 S E4,E5
                E SELVADURAI/AU
                E L1 PA
                E ELAM/CO
L16           35 S E9/CO,PA
                E E9+ALL
L17           35 S E2/CS
L18            1 S L1 AND L2-L17
L19          528 S L1-L17 NOT L18
                SEL RN L18

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L23           10 S L20 AND P/ELS
L24            7 S L23 AND N/ELS
L25            2 S L23 AND S/ELS
L26              STR
L27              STR L26
L28              STR L27
L29           50 S L28
L30         2896 S L28 FUL
                SAV L30 NELSON537A/A
L31           34 S L30 AND AL/ELS
L32         2862 S L30 NOT L31
L33              STR
L34           50 S L33
L35              STR L33
L36           50 S L35
L37        31453 S L35 FUL
                SAV TEMP L37 NELSON537B/A
L38            1 S L32 AND L37
L39         4369 S L33 FUL SUB=L37
                SAV TEMP L39 NELSON736C/A
L40            4 S L20 AND L39 NOT L38
L41              STR L33
L42              STR L41
L43              STR L42
L44           11 S (L41 OR L42 OR L43) SAM SUB=L39
L45          287 S (L41 OR L42 OR L43) FUL SUB=L39
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                SAV TEMP L39 NELSON537C/A
                SAV TEMP L45 NELSON537D/A
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L48          117 S L47 AND 5/ELC.SUB
L49           21 S L48 AND (C25H50N6OP2 OR C45H55NOP2 OR C30H26NOP2 OR C16H33N5O
L50           10 S L48 AND (C26H31N3OP2 OR C10H20N6OP2 OR C20H40N6O6P2 OR C32H29
L51           31 S L49,L50
L52           99 S L47 NOT L48
L53           34 S L52 AND (C24H21NO2P2 OR C24H20NO2P2 OR C30H22F3NOP2 OR C24H21
L54           24 S L53 NOT (TA OR RU OR TE OR SE OR PT OR CU)/ELS
L55           55 S L40,L51,L54
                SAV TEMP L55 NELSON537E/A
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L59          245 S L55
L60            1 S L59 AND L56
L61            1 S L59 AND L57
L62            2 S L59 AND L58
L63            3 S L56,L57,L60-L62
L64            1 S L1-L19 AND L63
L65            6 S L1-L19 AND L58
L66            9 S L1-L19 AND L59
L67            3 S L63,L64
L68           13 S L65,L66 NOT L67
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L70           41 S L58 AND (PRD<=20021205 OR PRD<=20021205 OR AD<=20021205) AND
L71          487 S L69,L70
L72            7 S L71 AND (C09K011 OR H05B033)/IPC,IC,ICM,ICS
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L73        65392 S E3-E14
                 E E3+ALL
L74        65392 S E18+OLD
                 E  ELECTROLUMINESC/CT
L75         1845 S E4-E6
                 E E4+ALL
L76        13779 S E8+OLD
                 E E15+ALL
L77         1320 S E5+OLD
                 E E4+ALL
L78        10989 S E4+OLD,NT
L79         1366 S E11+OLD
                 E E8+ALL
L80         3474 S E4+OLD
                 E E3+ALL
L81       283792 S E3+OLD,NT
L82           74 S L71 AND L73-L81
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L84           46 S L83 AND ?LUMINESC?
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L87          121 S E1-E121

     FILE 'REGISTRY' ENTERED AT 14:09:39 ON 09 APR 2008

     FILE 'HCAPLUS' ENTERED AT 14:09:59 ON 09 APR 2008
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L90          189 S L88,L89 NOT L67,L68,L86
L91            3 S L90 AND (C09K011 OR H05B033)/IPC,IC,ICM,ICS
L92            5 S L90 AND L73-L81
L93            5 S L90 AND ?LUMINESC?
L94            7 S L91-L93

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